# TRIBAL ENVIRONMENTAL POLICY IN AN ERA OF SELF-DETERMINATION: THE ROLE OF ETHICS, ECONOMICS, AND TRADITIONAL ECOLOGICAL KNOWLEDGE

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No one is much without the earth
in their hands
and I pick up earth,
touch the people
the country
and things we try to forget.[1]

## INTRODUCTION

Our future is tied to the land. No matter how far we advance as a society, that single fact persists and in some ways constrains our dreams for the future. For American Indian nations, the significance of the land is particularly compelling. Pushed to the perimeter of "civilization" during the years of westward expansion, Indian lands are now often perceived as fields of opportunity for a nation faced with the dismal legacy of overdevelopment. Imagine, for example, a vast expanse of western high desert: the subtle colors of dawn and dusk on rock outcroppings, the soft green of sagebrush and juniper, the ephemeral cloud-shadows that glide over the land. Once perceived as a barren "no man's land," entrepreneurs now see economic opportunity in that landscape: undeveloped deposits of coal or uranium, a place to graze cattle or sheep, perhaps even a site for a waste dump. Although some tribal members seek to develop those lands, others disagree. The land, they say, embodies a

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1. LINDA HOGAN (Chickasaw), ECLIPSE 37 (1983).

continuing legacy of natural wealth, of wild herbs and plants to be harvested, underground springs to be nourished, and sacred sites to be preserved and maintained.

Each vision is valid in its own way, and each vision represents human values, needs, and desires. But all too often, the visions appear mutually exclusive. We are called upon to make hard choices, to frame the destiny of our generation and those to come. To say that the choice is between preserving the past or ensuring economic development for the future is too simplistic. American Indian nations, like all societies, must try to do both. This Article addresses the ways in which American Indian nations make those difficult choices.

As Indian nations assume greater responsibility for managing tribal lands under the rubrics of tribal sovereignty and the federal self-determination policy, they are able to exercise more autonomy over environmental decision-making. That decision-making process, however, raises significant legal issues, ethical conflicts, and economic considerations. Environmental policy is the product of the combined influences of environmental ethics, science, and economics.[2] Similarly, tribal environmental policy must be responsive to the interacting forces of traditional ecological knowledge, western science, economics, and tribal systems of ethics. Moreover, because of the Indian nations' status as "domestic dependent nations," tribal environmental policy is to some extent contingent upon Anglo-American norms. The pervasive role of federal law extends to environmental decision-making and tribal economies, in most cases, are tied extensively to that of the United States. Yet the traditional systems of decision-making and normative frameworks for determining appropriate human conduct toward the environment remain, providing a framework for the debate over land use and often determining the fate of tribal economic development plans.

Conflicts over land use are as common in tribal communities as they are in non-Indian communities. There are, however, important distinctions. Tribal land use conflicts, such as the conflict over the proposed nuclear waste repository on the Mescalero reservation in New Mexico[3] or the proposed solid waste facility on the Los Coyotes reservation in California,[4] often illustrate value conflicts among tribal

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2. Fred P. Bosselman & A. Dan Tarlock, *The Influence of Ecological Science on American Law: An Introduction*, 69 CHI.-KENT L. REV. 847, 847 (1994).

3. *See Mescalero Apaches Back Nuclear Dump on Land*, ARIZ. REPUBLIC, Mar. 1995, at A8; *Nuclear Waste: Mescaleros Approve Storage in Second Vote*, Mar. 13, 1995, *available in* LEXIS, News Library, Grnwre File.

4. *See* DAN MCGOVERN, THE CAMPO INDIAN LANDFILL WAR: THE FIGHT FOR GOLD IN CALIFORNIA'S GARBAGE 223-47 (1995).

members as well as political conflicts with adjacent non-Indian communities. Thus, tribal sovereignty becomes a critical part of the debate. On the one hand, some tribal members argue that the Tribal Council is not expressing the true will of the people or acting in accordance with their tribal values.[5] On the other hand, local non-Indians complain that tribal sovereignty serves as a shield for Indians and their non-Indian corporate partners to escape regulatory systems that would ensure safe land development.[6] Non-Indian environmental activists often assert that the exploitive values of the majority society are being foisted on Indian communities who are often economically and politically powerless to resist.[7] Finally, any discussion of environmentalism and Indians is complicated by ubiquitous stereotypes depicting Indians as living in harmony with nature in a peaceful, serene, and apparently static existence. To the extent that Indians act in ways that seem to challenge these stereotypes, they are criticized as "buying in" to majority values and discarding tribal tradition.

This Article discusses the role of tribal environmental decision-making in the contemporary era of self-determination, and analyzes the ethical, scientific, and economic dimensions of environmental policy. To provide a framework for that discussion, Part I explores the nature of tribal governmental authority over the reservation environment and the legal boundaries of self-determination. Parts II, III, and IV probe the origins of contemporary environmental policy and its influence on tribal environmental decision-making. Part V examines several current examples of tribal implementation of environmental policy and the conflicts and resolutions engendered by these efforts. Finally, Part VI demonstrates the important links between environmental policy and economic development for Indian nations.

The goal of this Article is to provide a foundation for the exploration of tribal rights to the environment, particularly for a right to "environmental self-determination"—the right to exercise sovereignty and autonomy over reservation lands and resources.[8] Concepts of tribal land use and management, environmental stewardship, sustainability, and governmental autonomy are critical components of tribal rights to the environment. However, it is necessary to situate these concepts within a

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5. *Id.* at 231.

6. *See, e.g., id.* at 28-31.

7. *See* John Anner, *Protecting Mother Earth: Native Americans Organize to Stop the Merchants of Hazardous Waste*, THE MINORITY TRENDSETTER, Fall 1991, at 6.

8. This is the topic of a work in progress by the author entitled *"For the Benefit of the Seventh Generation": Defining an Indigenous Right to Environmental Self-Determination.*

normative framework in order to understand how and why they justify or fail to justify the larger right to "environmental self-determination." The international movement to affirm indigenous self-determination has begun to define such a normative framework for indigenous environmental rights.[9] For example, Principle 22 of the Rio Declaration, presented at the United Nations Conference on Environment and Development in Rio de Janeiro, June 3-14, 1992, recognizes the vital role of indigenous communites in environmental management and development "because of their knowledge and traditional practices."[10] The broad discussion of environmental decision-making set forth in this Article probes the content of that normative framework and seeks to provide a foundation for the future discussion of tribal environmental rights in a way that is focused on past and present realities rather than on stereotypes.

## I. TRIBAL ENVIRONMENTAL AUTHORITY IN THE ERA OF SELF-DETERMINATION

Tribal environmental authority largely tracks the scope of sovereignty and self-determination that has emerged from federal Indian law and policy.[11] At the outset, however, it should be noted that tribal concepts of governmental authority often hinge on moral constructs that differ from the European notions of "sovereignty" and "self-determination." For example, Oren Lyons describes Iroquois governmental decision-making as being dependent upon one central question: "will this be to the benefit of the seventh generation?"[12] For the Iroquois nations then, governmental authority is limited by a sense of duty to protect the land and its resources for future generations. Although other Indian nations have different political traditions, it is clear that many share a commitment to preserving

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9. *See generally* Armstrong Wiggins, *Indian Rights and the Environment*, 18 YALE J. INT'L L. 345 (1993).

10. Russell Lawrence Barsh, *Indigenous Peoples in the 1990s: From Object to Subject of International Law*, 7 HARV. HUM. RTS. J. 33, 46 (1994) [hereinafter Barsh, *Indigenous Peoples*] (quoting *Report of the United Nations Conference on Environment and Development*, U.N. Conference on Environment and Development, at 12, U.N. Doc. A/Conf. 151/26 (Vol. I) (1992)).

11. *See, e.g.*, Washington v. EPA, 752 F.2d 1465, 1467-69 (9th Cir. 1985) (upholding EPA's refusal to approve state hazardous waste program on Indian lands and finding that EPA's construction of the statute was "buttressed by well-settled principles of federal Indian law"). *See generally* Judith V. Royster, *Controlling Land Use Through Environmental Regulation*, 1 KAN. J.L. & PUB. POL'Y 89 (1991).

12. Oren Lyons, *An Iroquois Perspective*, *in* AMERICAN INDIAN ENVIRONMENTS: ECOLOGICAL ISSUES IN NATIVE AMERICAN HISTORY 171, 173 (Christopher Vecsey & Robert W. Venables eds., 1980).

the land for future generations.[13] Against this more holistic traditional notion of governmental authority, federal policy sets boundaries for the exercise of tribal sovereignty over the reservation environment.

### *A. The Implications of Tribal Self-Determination on Environmental Policy*

Self-determination, as an international political construct, evokes complex principles of group rights, autonomy, and national integrity.[14] In that sense, the international understanding of self-determination reflects emerging tribal concepts of political identity and authority.[15] Although this deeper sense of self-determination can and should guide our understanding of the rights of American Indian nations to their traditional lands,[16] this Article focuses more specifically on the federal policy of self-determination and its influence on tribal environmental authority.

In 1970, President Richard Nixon called for a new federal policy of self-determination for American Indians.[17] The self-determination policy represented a welcome change from the previous federal policy of "termination," which sought to abolish the federal trusteeship over Indian tribes, dismantle the reservations, and end the Indian tribes' unique status as "domestic, dependent nations."[18] The self-determination policy, intended to "strengthen the Indian's sense of autonomy without threatening

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13. *See infra* notes 262, 270, and accompanying text.

14. *See* Allen Buchanan, *Federalism, Secession, and the Morality of Inclusion*, 37 ARIZ. L. REV. 53, 54 (1995).

15. *See generally* S. James Anaya, *A Contemporary Definition of the International Norm of Self-Determination*, 3 TRANSNAT'L L. & CONTEMP. PROBS. 131 (1993); Russell Lawrence Barsh, *The Challenge of Indigenous Self-Determination*, 26 U. MICH. J.L. REFORM 277 (1993) [hereinafter Barsh, *Indigenous Self-Determination*]; Robert A. Williams, Jr., *Encounters on the Frontiers of International Human Rights Law: Redefining the Terms of Indigenous Peoples' Survival in the World*, 1990 DUKE L.J. 660 [hereinafter Williams, *Encounters on the Frontiers*].

16. *See supra* note 8. I address the interface between a political conception of indigenous self-determination and tribal rights to the environment elsewhere. *See infra* part V. Professor Allen Buchanan has commented more generally on the connections between self-determination and rights to land use regulation. *See* Buchanan, *supra* note 14, at 54 (noting that the political right of self-determination includes "genuine rights of self-government, including rights to regulate the use of land and the development of natural resources").

17. Message from the President of the United States Transmitting Recommendations for Indian Policy, H.R. Doc. No. 91-363, at 3 (1970).

18. *Id.*

his sense of community," encouraged tribes to assume control over many of the federal programs being administered on the reservation.[19]

Tribal self-determination persists as the official federal policy[20] and is a central underpinning for Congress' recent amendments to the federal environmental statutes, which allow tribes to administer federal environmental regulatory programs on a similar basis to the states.[21] The federal policy of self-determination has also encouraged tribes to consolidate their land bases[22] and exercise control over their natural resources,[23] thereby reversing earlier federal policies that placed control over land and resources with the Bureau of Indian Affairs, often to the

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19. *Id.*; *see also* 25 U.S.C. § 450(a) (1995) (setting forth the Act's purpose: to assure "maximum Indian participation in the direction of educational as well as other Federal services to Indian communities so as to render such services more responsive to the needs and desires of those communities").

20. In a 1994 speech to Indian leaders, for example, President Clinton affirmed the federal policy of self-determination, stating that:

> In every relationship between our people, our first principle must be to respect your right to remain who you are and to live the way you want to live. And I believe the best way to do that is to acknowledge the unique government-to-government relationship we have enjoyed over time.
>
> Today, I re-affirm our commitment to self-determination for tribal governments. Today I pledge to fulfill the trust obligations of the federal government. Today I vow to honor and respect tribal sovereignty based upon our unique historical relationship.

*Quoted in* FRANK POMMERSHEIM, BRAID OF FEATHERS: AMERICAN INDIAN LAW AND CONTEMPORARY TRIBAL LIFE 122 (1995).

21. *See infra* note 45. For a helpful discussion of the tribal amendments in the context of the federal self-determination policy, see Mark Allen, *Native American Control of Tribal Natural Resource Development in the Context of the Federal Trust and Tribal Self-Determination*, 16 B.C. ENVTL. AFF. L. REV. 857 (1989).

22. Congress has enacted several statutes providing for expansion and preservation of tribal land bases. Much of this legislation is geared toward remediating the consequences of the federal allotment policy of the late 1800s and early 1900s, which often resulted in fragmented land ownership on the reservation and prevented realistic economic development. *See, e.g.*, the Indian Land Consolidation Act of 1991, 25 U.S.C. §§ 2201-2211 (1995); 25 U.S.C. §§ 372-373(b) (1995) (dealing with allotments).

23. *See, e.g.*, The National Indian Forest Resources Management Act, 25 U.S.C. §§ 3101-3120 (Supp. 1996) (intended to reform trust management of Indian forest resources and encourage greater tribal involvement); The Indian Mineral Development Act of 1982, 25 U.S.C. §§ 2101-2108 (1994).

As Professor Robert Clinton has observed, the self-determination policy encouraged "economic development of Indian lands, particularly the facilitation of leasing of Indian resources." ROBERT CLINTON ET AL., AMERICAN INDIAN LAW 160 (3rd ed. 1991). Ironically, however, "[t]he potential inconsistency between the tribal sovereignty and control over the Indian reservation and the impacts caused by extensive leasing of Indian lands for non-Indian controlled economic development was not noted, although this tension became a major theme in Indian economic development during the decade." *Id.*

clear detriment of the tribes.[24] These newer policies are significant because natural resource development has long been a predominant means of economic development on many reservations.[25] In particular, the extractive industries, such as coal, uranium, oil, and gas, have played a major role in reservation economic development.[26] Along with their fiscal contributions, however, the extractive industries have brought mining, milling, and smelting operations to Indian lands, causing pollution of reservation lands, waters, and air passages.[27]

Under the self-determination policy, Indian nations are now in a position to develop tribal natural resources and promote reservation economic development according to their own policies and values. For example, many Indian nations have contracted with the federal government to conduct forestry programs on their reservations, often leading to improved management of their timber resources.[28] This enhanced sense of tribal sovereignty over the reservation environment embodies what I call "environmental self-determination."[29]

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24. For an excellent discussion of the detrimental effects of federal control over tribal natural resources in the years prior to the federal self-determination policy, see MARJANE AMBLER, BREAKING THE IRON BONDS: INDIAN CONTROL OF ENERGY DEVELOPMENT 261-62 (1990); Judith V. Royster, *Mineral Development in Indian Country: The Evolution of Tribal Control Over Mineral Resources*, 29 TULSA L.J. 541, 544 (1993).

25. *See* Allen, *supra* note 21, at 870-79; Royster, *supra* note 24, at 542-44; AMBLER, *supra* note 24, at 31-33. "[T]he U.S. Department of the Interior has estimated that 25% of all the nation's mineral wealth is located on Indian lands." A. David Lester, *The Environment from an Indian Perspective*, EPA JOURNAL, Jan.-Feb. 1986, at 27, 28. The 41 Indian nations that are members of the Council of Energy Resource Tribes (CERT) have jurisdiction of lands that possess "approximately one-third of the nation's recoverable low-sulphur coal, six percent of America's onshore oil and gas reserves, 50 percent of U.S. uranium deposits, plus large quantities of oil shale, tar sands, and other minerals such as phosphate, limestone, and copper." *Id.*

26. *See* Richard Du Bey et al., *Protection of the Reservation Environment: Hazardous Waste Management on Indian Lands*, 18 ENVTL. L. 449, 454 (1988).

27. *Id.*; *see also* Allen, *supra* note 21, at 879 (noting that reservations currently face pollution problems associated with mineral extraction and also that "[s]erious deficiencies exist in water quality, solid waste disposal, hazardous waste management, sewage treatment and disposal, and other areas") (citing Environmental Protection Agency, Survey of American Indian Environmental Protection Needs on Reservation Lands: 1986, and *EPA Surveys Indian Tribes for First Look at Environmental Problems on Reservations*, 17 Env't Rep. (BNA) 1424 (Dec. 19, 1986)).

28. This is known as "638 contracting" in reference to the public law number of the Indian Self-Determination and Education Assistance Act of 1975, and allows tribes to assume direct control over the resource rather than relying on the Bureau of Indian Affairs to manage it for them. *See* Matthew B. Krepps, *Can Indian Tribes Manage Their Own Resources? The 638 Program and American Indian Forestry*, *in* WHAT CAN TRIBES DO? STRATEGIES AND INSTITUTIONS IN AMERICAN INDIAN ECONOMIC DEVELOPMENT 179 (Stephen Cornell & Joseph P. Kalt eds., 1992).

29. *See supra* note 8 and accompanying text.

Because the Indian nations are "domestic" sovereigns, however, reservation lands fall, to some extent, under federal jurisdiction.[30] Environmental conditions on the reservation are therefore subject to a dual legal structure of federal and tribal law, providing added complexity to the notion of "environmental self-determination."[31] Although tribal values and norms regarding environmental use should serve as the basis for tribal environmental policy under the principle of "self-determination," tribal policy is in fact heavily impacted by the values and norms of Anglo-American society, embodied in federal environmental law and policy.

### *B. The Application of Federal Environmental Policy to Tribal Lands*

Federal environmental law influences tribal environmental policy both directly and indirectly. Congress has both the authority to pass laws that are specifically applicable to Indian tribes and reservation lands[32] and the power to delegate federal environmental authority to the Indian tribes in some cases.[33] Moreover, general federal statutes governing the

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30. *See* Cherokee Nation v. Georgia, 30 U.S. 1, 17 (1831) (finding that the Indian nations were not "foreign nations" within the meaning of Article III of the Constitution, but were "domestic dependent nations").

31. This Article does not discuss the jurisdictional conflicts between states and tribes over environmental regulation, except insofar as they illustrate differing values. Although states have actively sought environmental jurisdiction over the reservations, these efforts have been largely rebuffed by the EPA and the courts, at least with respect to tribal trust lands. *See, e.g.*, Washington v. EPA, 752 F.2d 1465, 1469-70 (9th Cir. 1985) (upholding EPA's refusal to permit state RCRA program to operate on Indian lands). State regulatory jurisdiction over non-Indian fee land within the reservation has been upheld in limited circumstances, but thus far has not extended to environmental regulatory jurisdiction. *See* Brendale v. Confederated Yakima Indian Nation, 492 U.S. 408 (1989) (applying county zoning ordinance to non-Indian fee land in "open" portion of reservation); Montana v. United States, 450 U.S. 544 (1981) (applying state hunting and fishing regulations to non-Indian fee land within reservation). *See generally* Judith V. Royster & Rory SnowArrow Fausett, *Control of the Reservation Environment: Tribal Primacy, Federal Delegation, and the Limits of State Intrusion*, 64 WASH. L. REV. 581 (1989) (providing detailed information on jurisdictional conflicts over environmental regulation); Charles F. Wilkinson, *Cross-Jurisdictional Conflicts: An Analysis of Legitimate State Interests on Federal and Indian Lands*, 2 UCLA J. ENVTL. L. & POL'Y 145 (1982).

32. The Commerce Clause empowers Congress "[t]o regulate commerce with foreign nations, and among the several States, and with the Indian tribes." U.S. CONST. art. I, § 8, cl. 3. The Commerce Clause is the primary textual source of congressional plenary power over Indian affairs. *See* Merrion v. Jicarilla Apache Tribe, 455 U.S. 130, 155 n.21 (1982) ("when Congress acts with respect to the Indian tribes, it generally does so pursuant to its authority under the Indian Commerce Clause, or by virtue of its superior position over the tribes"); Santa Clara Pueblo v. Martinez, 436 U.S. 49, 56 (1978) ("Congress has plenary authority to limit, modify or eliminate the powers of local self-government which the tribes otherwise possess.").

33. *See, e.g.*, Nance v. EPA, 645 F.2d 701, 714-15 (9th Cir. 1981) (upholding delegation of redesignation authority over air quality to Northern Cheyenne Tribe).

environment may apply to reservation lands, imposing a duty on Indian nations to comply with the federal standards.[34] This latter principle has emerged from case law holding that, where a general federal statute fails to expressly mention Indians or Indian property, the statute will be applicable if the nature of the legislation or its purpose requires "national or uniform application."[35]

The United States Environmental Protection Agency (EPA) currently exercises regulatory jurisdiction under a comprehensive network of statutes that govern air pollution,[36] water pollution,[37] drinking water safety,[38] solid and hazardous waste,[39] insecticides,[40] toxic substances,[41] and clean up of severely contaminated sites.[42] The states are encouraged to assume primary responsibility under the federal regulatory programs and can also regulate in areas not controlled by federal law. Until recently, most of the federal environmental statutes made no mention of the Indian nations, although in selected cases courts held that the statutes were applicable to Indian tribes and lands. For example, in the context of the Safe Drinking Water Act (SDWA), the Tenth Circuit held that the uniform national policy on clean water embodied in the SDWA was intended to include

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34. *See infra* notes 36-44 and accompanying text.

35. *See* Federal Power Comm'n v. Tuscarora Indian Nation, 362 U.S. 99, 118 (1960) (holding that the condemnation authority contained in the Federal Power Act applies to Indian lands due to the comprehensive purpose of that statute). There is an exception to this general rule: where application of the federal statute would result in abrogation of federal treaty rights, the courts generally require some indication that Congress was aware of the statute's impact in order to find it applicable. *See* United States v. Dion, 476 U.S. 734, 738 (1986).

36. The Clean Air Act (CAA), 42 U.S.C. §§ 7401-7671(q) (1989). For an excellent discussion of the CAA as it applies in Indian country, see Julie M. Reding, Comment, *Controlling Blue Skies in Indian Country: Who is the Air Quality Posse—Tribes or States? The Applicability of the Clean Air Act in Indian Country and on Oklahoma Tribal Lands*, 18 AM. INDIAN L. REV. 161 (1993).

37. The Clean Water Act (CWA), 33 U.S.C. §§ 1251-1376 (1989), *as amended by* 33 U.S.C. §§ 1377-1387 (Supp. 1995).

38. The Safe Drinking Water Act (SDWA), 42 U.S.C. §§ 300(f)-300(j)(26) (1989). For an excellent discussion of the underground injection control (UIC) programs in Indian Country after the 1986 amendments to the SDWA and promulgation of rules in 40 C.F.R. Parts 35-147, see Catherine Vandemoer, *The Development of Underground Injection Control Programs on Indian Lands: Issues, Challenges and a Blueprint for Tribal Program Development*, (National Indian Law Library Document #006119) .

39. The Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901-6992(k) (1995).

40. The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), 7 U.S.C. §§ 136-136(y) (1995).

41. The Toxic Substances Control Act (TSCA), 15 U.S.C. §§ 2601-2671 (1995).

42. The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. §§ 9601-9675 (1989). See Steven H. Berlant, *Responding to Dangers Posed by Hazardous Substances: An Overview of CERCLA's Liability and Cost Recovery Provisions as They Relate to Indian Tribes*, 15 AM. INDIAN L. REV. 279 (1991), for a discussion of CERCLA's applicability to Indian tribes.

Indian tribes.[43] Other courts have held that because Indian tribes were included in the definition of "municipality" under the Resource Conservation and Recovery Act (RCRA), this meant that the statute was applicable to the tribes.[44]

Under recent amendments to many of the federal environmental statutes,[45] qualified tribes are now eligible to assume regulatory primacy on a basis similar to the states.[46] Importantly, the tribal amendments did not *confer* environmental regulatory authority upon the Indian nations; rather, the Indian nations' inherent sovereignty already enabled them to exercise such authority in most cases.[47] However, the tribal amendments

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43. *See* Phillips Petroleum Co. v. EPA, 803 F.2d 545, 555-56 (10th Cir. 1986) (holding that the SDWA empowered the EPA to promulgate underground injection control programs for Indian lands).

44. *See, e.g.*, Washington v. EPA, 752 F.2d 1465, 1469 (9th Cir. 1985) (holding that RCRA applies to Indian lands); *accord*, Blue Legs v. EPA, 668 F. Supp. 1329, 1338 (D.S.D. 1987), *aff'd*, 867 F.2d 1094, 1097 (8th Cir. 1989) (holding that RCRA applies to Indian lands and may be enforced against Indian tribes).

45. *See, e.g.*, the Surface Mining Control and Reclamation Act, 30 U.S.C. §§ 1221-1230 (1989), *as amended by* 30 U.S.C. §§ 1221-1230, 1234-1235 (Supp. 1995) (in particular, the provision regarding reclamation of abandoned mines at § 1235); CAA, 42 U.S.C. §§ 7401-7671(q); SDWA, 42 U.S.C. §§ 300(f)-300(j)(26); CERCLA, 42 U.S.C. §§ 9601-9675. In fact, the only major federal environmental statute that has not been amended to expressly include the Indian nations is RCRA, which continues to mention the Indian nations only by definition. Although several bills have been introduced into Congress that would amend RCRA to include the tribes, none has passed so far. *See, e.g.*, 141 CONG. REC. S1618-02 (S. 286, 104th Cong., 1st Sess., the Solid Waste Disposal Act of 1995, suggests "amending the Solid Waste Disposal Act to grant State status to Indian tribes for purposes of the enforcement of such Act").

46. *See generally* Teresa A. Williams, *Pollution and Hazardous Waste on Indian Lands: Do Federal Laws Apply and Who May Enforce Them?*, 17 AM. INDIAN L. REV. 269 (1992).

47. *See, e.g.*, Clean Air Act Final Interim Approval of the Operating Permits Program; Wisconsin, 60 Fed. Reg. 12,128, 12,130 (1995) (noting that "even without the proposed grant of authority [under the CAA], Indian Tribes would very likely have inherent authority over all activities within reservation boundaries, including non-Indian owned activities on fee lands, that are subject to Act regulation. The high mobility of air pollutants, resulting area-wide effects and the seriousness of such impacts would all tend to support such inherent tribal authority."). As this comment by the EPA observes, the only place where inherent tribal sovereignty to regulate has been called into question is with regard to non-Indian owned fee land within the reservation. *See, e.g.*, Brendale v. Confederated Yakima Indian Nation, 492 U.S. 408 (1989) (holding that tribe did not have zoning authority over non-Indian owned fee land in "open" portion of reservation); Montana v. United States, 450 U.S. 544 (1981) (holding that tribe did not have authority to regulate non-Indian hunting and fishing on fee lands within reservation). In *Montana*, however, the Court held that inherent sovereignty to regulate non-Indian conduct on fee lands may persist where the non-Indian has entered into consensual dealings with the tribe or its members, or when the non-Indian's conduct "threatens or has some direct effect on the political integrity, the economic security, or the health or welfare of the tribe." 450 U.S. at 566.

The EPA has not interpreted the tribal amendments as a congressional authorization of tribal authority over pollution sources on non-Indian fee lands. *See* Amendments to the Water Quality Standards Regulation that Pertain to Standards on Indian Reservations, 40 C.F.R. § 131.8 (1991). Rather, EPA's policy is to approve a tribal program for application throughout the reservation only when a tribe can demonstrate that it has jurisdiction over all lands within the reservation, including

are important because they enable the Indian nations to participate in a federal/tribal partnership under the environmental statutes, similar to the partnership that exists between the federal government and the states.[48] Thus, the Indian nations, like the states, retain their sovereign authority to regulate their lands more stringently than the federal minimum standards and to regulate in areas not covered by federal programs.[49]

The resulting combination of federal and tribal environmental policy has been questioned by some non-Indians, particularly with respect to the differing goals that Indian nations seek to enforce. For example, in 1992 the EPA approved the Isleta Pueblo's water quality standards under the Clean Water Act (CWA). Water quality standards are a method of expressing the desired condition of a particular watercourse according to the planned uses of the water.[50] In that sense, water quality standards differ from the uniform technology-based standards promulgated by the EPA which restrict the quantities, rates, and concentrations of specific pollutants.[51]

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non-Indian fee lands. *See, e.g.*, § 131.8(a)(3) (requiring tribe to demonstrate jurisdiction over the activities of nonmembers on all reservation lands on which the tribe seeks to apply its water quality standards). In order to demonstrate jurisdiction over nonmember fee lands, the tribe must show, under the test set forth in *Montana*, that the regulated activities affect "the political integrity, the economic security, or the health or welfare of the tribe," and that the potential impacts of the regulated activities are "serious and substantial." 56 Fed. Reg. 64,876, 64,878 (1991) (citing *Montana*, 450 U.S. at 565-66). For example, the EPA recently approved the Confederated Salish and Kootenai Tribes' application for water quality standards authority upon a demonstration that water pollution on the Reservation originating on non-member owned fee lands would have "serious and substantial effects upon the health and welfare of the Tribe." *See* Memorandum in Support of EPA's Motion for Summary Judgment at 1, Montana v. EPA, No. CV-95-56-M-CCL (D. Mont., Missoula Div., Mar. 27, 1996).

48. *See* Dean B. Suagee & Christopher T. Stearns, *Indigenous Self-Government, Environmental Protection, and the Consent of the Governed: A Tribal Environmental Review Process*, 5 COLO. J. INT'L ENVTL. L. & POL'Y 59, 79 (1994) (describing the partnership between the federal government and the states and noting that "[f]ederal laws generally do not preempt state laws, but do establish an overall framework, along with some minimum requirements for state environmental protection programs"); Roy Popkin, *Indians Act for a Cleaner Environment*, EPA JOURNAL, Apr. 1987, at 28 (describing the EPA-Indian partnership).

49. *See, e.g.*, City of Albuquerque v. Browner, 865 F. Supp. 733, 740 (D.N.M. 1993), *aff'd*, 97 F.3d 415 (10th Cir. 1996) (finding that the EPA "properly recognized the Pueblo's authority to develop water quality standards more stringent than those of the federal government"); *see also* Royster, *supra* note 24, at 613 n.465 (noting that "[u]nder the federal acts, states and tribes are generally permitted to enact standards more stringent than the federal minimums, and may exercise their police powers to regulate environmental matters not covered by the federal programs, but may not choose to regulate less stringently than federal law requires").

50. *See* Arkansas v. Oklahoma, 503 U.S. 91, 101 (1992); *see also* CWA § 303; 33 U.S.C. § 1313.

51. *See* CWA §§ 301, 304; 33 U.S.C. §§ 1311, 1314.

In formulating its water quality standards, the Pueblo of Isleta sought to protect the ceremonial use of its water by tribal members[52] as well as fishery, recreational, and other "standard" water uses.[53] Thus, the Pueblo's standards required more stringent protection of the water than the typical "fishable/swimmable" goal that the CWA would have required. The City of Albuquerque, located upstream of the Pueblo, challenged the EPA's approval of the more stringent standards which would have required a significant expenditure by the City to bring its wastewater treatment plant into compliance. The court in *City of Albuquerque v. Browner* upheld the EPA's approval of the water quality standards, thus affirming the Pueblo's authority to regulate more stringently than required by the CWA.[54]

The court's decision in *Browner* has been criticized by some commentators as causing undue hardship to upstream water users and resulting in economic inefficiency. For example, one commentator found the Pueblo's cultural use of the water potentially unreasonable and suggested that the tribes, unlike the states, should be limited by a standard of "reasonableness" in formulating their water quality standards which would take into account the "economic impacts and present and historical uses and quality of the water."[55] This distinction between tribal and state authority would be "justified by the fact that Indian tribes are entering the field of water quality administration at such a late period" and should not be permitted to disrupt state programs.[56] Professor John Harbison comments more generally that the conflicts over Isleta's water quality standards are an example of the economic inefficiencies caused by "Clean Water Act federalism" and suggests that tribes use the "leverage they would acquire by being treated as states under the Clean Water Act to promote a watershed approach to water quality protection."[57]

These critical perspectives illustrate some of the problems that have emerged from the application of the tribal amendments to the Indian nations,[58] and suggest that enforcement by both states and tribes under centralized federal authority will sometimes trigger a conflict of values.

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52. *See Browner*, 865 F. Supp. at 740 (importantly, Isleta's ceremonial use of water involved human ingestion).

53. *See* Mark A. Bilut, Albuquerque v. Browner, *Native American Tribal Authority Under the Clean Water Act: Raging Like a River Out of Control*, 45 SYRACUSE L. REV. 887, 894 n.50 (1994).

54. *Browner*, 865 F. Supp. at 733.

55. Bilut, *supra* note 53, at 912.

56. *Id.* at 913.

57. John S. Harbison, *The Downstream People: Treating Indian Tribes as States Under the Clean Water Act*, 71 N.D. L. REV. 473, 474 (1995).

58. Indeed, as Professor Harbison notes, the upstream Indian nations could well confront similar problems with respect to the designated uses of downstream states. *Id.* at 484.

For example, the Isleta Pueblo's water quality standards are primarily intended to serve collective values of the Pueblo rather than the aggregate economic efficiency of society. The overriding issue, of course, is whether federal power should be permitted to limit tribal governmental authority so that dominant societal values can prevail. This is a result that certain states advocate in proposals to limit or terminate tribal authority under the CWA.[59]

The tribal amendments to the major federal environmental statutes, such as the CWA, directly apply federal environmental policies to Indian lands. In other cases, however, federal policies have been applied to Indian lands by implication. For example, the National Environmental Policy Act (NEPA) contains no mention of Indians in its text or legislative history; nevertheless courts have held the statute applicable to Indian lands.[60] NEPA was enacted in 1969 as a "basic national charter for protection of the environment."[61] Despite this lofty goal, the courts have interpreted NEPA as a purely procedural statute intended to ensure that federal agencies take into account the impacts of their actions.[62] The statute imposes no meaningful substantive constraints on environmental decision-making and, although agencies must consider alternatives to their proposed actions, NEPA does not require them to select the least

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59. For example, after the Confederated Salish and Kootenai Tribes received EPA approval for their water quality standards under the CWA, Montana Governor Marc Racicot announced plans to lobby Congress "to amend the Clean Water Act to prevent similar actions in the future." Paul Kemezis, *Montana Takes on EPA in Fight over Tribal Environmental Authority*, ENV'T WEEK, Mar. 9, 1995, at 3. House Report 961, which was passed by the House of Representatives in May 1995, would prohibit tribes from applying reservation water quality standards to water resources on fee lands. *See* H.R. 104-112, 104th Cong., 1st. Sess. (1995) (accompanying H.R. 961). Although the ultimate fate of H.R. 961 is unclear, there is significant support for the movement to limit tribal control over fee lands on the reservation. A federal district court has upheld EPA's approval of the Confederated Salish and Kootenai Tribes' water quality standards against a challenge filed by the State of Montana. *See* Montana v. EPA, No. CV-95-56-M-CCL (D. Mont., Missoula Div. Mar. 27, 1996) (granting motions for summary judgment filed by the Confederated Salish and Kootenai Tribes and the EPA).

60. National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321-4370(b) (1995); *see, e.g.*, Davis v. Morton, 469 F.2d 593 (10th Cir. 1972); *see generally* Dean B. Suagee, *The Application of the National Environmental Policy Act to "Development" in Indian Country*, 16 AM. INDIAN L. REV. 377 (1991).

61. *See* 40 C.F.R. § 1500.1(a) (1995). The statute, which is itself quite brief, has been expanded and refined in regulations promulgated by the Council on Environmental Quality (CEQ). *See* 40 C.F.R. §§ 1501-1517.7. NEPA requires an analysis of major federal actions that may significantly affect human health and the environment. 42 U.S.C. § 4332(2)(C). This is accomplished through a variety of procedural mechanisms, including an initial environmental assessment, and depending upon the finding, a subsequent "finding of no significant impact" or a complete environmental impact statement. *See id.*

62. *See, e.g.*, Robertson v. Methow Valley Citizen's Council, 490 U.S. 332, 350 (1989).

environmentally damaging alternative.[63] As one court held: "NEPA does not require that an agency raise environmental concerns above other legitimate considerations, but only requires that the environmental concerns be brought to the agency's attention."[64]

Today, NEPA compliance is required before the Bureau of Indian Affairs (BIA) can approve a contract or lease for a business enterprise on reservation lands.[65] NEPA's goals and procedures, however, are purely a function of federal law and policy. Thus, efforts to protect tribal interests on lands outside the reservation by asserting NEPA have been largely unsuccessful.[66] For example, in a recent case the Havasupai Tribe challenged a decision by the U.S. Forest Service to permit uranium mining at a site that had been part of the tribe's aboriginal lands and had sacred religious sites on it.[67] Although the tribe's central purpose was to protect the integrity of these ancestral cultural and religious sites, it was somewhat

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63. MCGOVERN, *supra* note 4, at 167-68.

64. *See* County of San Diego v. Babbitt, 847 F. Supp. 768, 772 (S.D. Cal. 1994).

65. Of course, tribal approval is required as well, and it should be noted that tribal governments may impose their own NEPA requirements for reservation-based projects. *See* 30 BIAM Supp. 1 at § 2.6C (1982) (noting that where tribal governments enact their own version of NEPA, the BIA will seek coordinated federal-tribal action). For an excellent discussion of how tribes can protect their interests through a tribal environmental review process, see Suagee & Stearns, *supra* note 48, at 89-100.

66. *See, e.g.*, All Indian Pueblo Council v. United States, 975 F.2d 1437, 1446 (10th Cir. 1992) (finding that EIS adequately evaluated proposed electrical transmission line); Havasupai Tribe v. United States, 752 F. Supp. 1471, 1505 (D. Ariz. 1990) (finding that EIS adequately evaluated proposed uranium mining project), *aff'd*, 943 F.2d 32 (9th Cir. 1991); No Oilport! v. Carter, 520 F. Supp. 334, 359 (W.D. Wash. 1981) (finding that EIS adequately evaluated proposed construction of oil pipeline); Jicarilla Apache Tribe of Indians v. Morton, 471 F.2d 1275, 1287 (9th Cir. 1973) (finding NEPA compliance in connection with construction of electric-generating facilities in southwestern United States).

Indian nations have, of course, prevailed in some cases. For example, the Northern Cheyenne Tribe was successful in its action to void several coal mining leases on federal lands adjacent to the reservation where the environmental impact statement (EIS) failed to consider the impact on the tribe and its lands. Northern Cheyenne Tribe v. Hodel, 851 F.2d 1152, 1158 (9th Cir. 1988) (remanding to district court); 804 F. Supp. 1281 (D. Mont. 1991) (voiding lease); *see* Colorado River Tribes v. Marsh, 605 F. Supp. 1425, 1441 (C.D. Cal. 1985) (enjoining development project due to violations of NEPA and the National Historic Preservation Act); *cf.* Mount Graham Coalition v. Thomas, 53 F.3d 970, 977 (9th Cir. 1995) (holding that where the statutory exemption from compliance with environmental laws provided in the Arizona-Idaho Conservation Act did not encompass a particular site, defendants violated the Endangered Species Act and NEPA by failing to prepare an EIS prior to approving the relocation of a large binocular telescope). The Mount Graham case does not represent a true "victory" for the San Carlos Apache Tribe because a large portion of the Tribe's sacred area was preempted from NEPA altogether by the Arizona-Idaho Conservation Act. *See* Apache Survival Coalition v. United States, 21 F.3d 895, 904-05 (9th Cir. 1994) (upholding AICA exemption of NEPA and the ESA).

67. *See, e.g.*, Havasupai Tribe v. United States, 752 F. Supp. 1471, 1476 (D. Ariz. 1990), *aff'd*, 943 F.2d 32 (9th Cir. 1991).

limited by the available legal claims. Thus, the Havasupais asserted in part that the environmental impact statement (EIS) was deficient and failed to comply with NEPA.[68]

In *Havasupai Tribe v. United States*, the EIS indicated that the uranium mining would cause some adverse effects on the environment and potential adverse effects on human health.[69] The court nonetheless found that the requirements of NEPA had been met.[70] Because NEPA imposes only procedural requirements, agencies have wide discretion to proceed with a project even if it would have some adverse impact on human health or the environment.[71] It should be noted, however, that the fact that NEPA allows such wide discretion in enviromnental decision-making has in some cases *benefitted* tribal governments faced with NEPA challenges by persons concerned that an enterprise on tribal land may have detrimental environmental effects.[72]

The Endangered Species Act[73] (ESA) is another example of a general federal statute that has been held applicable to tribal lands and may potentially apply to abrogate Indian treaty rights.[74] The ESA is intended to protect endangered and threatened species and operates to constrain the activities of both government agencies and private individuals.[75] Because resource development on Indian lands generally requires federal agency participation, the ESA applies to such undertakings in the vast majority of cases. Moreover, the courts have held that the ESA prohibits individual

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68. *Id.*

69. *Id.* at 1500-02 (noting that while experts disagreed as to the nature and extent of the potential impacts, this was not sufficient to show a deficiency in the NEPA process).

70. *Id.* at 1505.

71. *Id.* at 1490.

72. *See, e.g.*, County of San Diego v. Babbitt, 847 F. Supp. 768, 771 (S.D. Cal. 1994) (upholding the Secretary of the Interior's approval of a commercial solid waste facility on the Campo Indian reservation against a challenge under NEPA).

73. 16 U.S.C. §§ 1531-1538 (1988).

74. *See* United States v. Dion, 476 U.S. 734 (1986) (where an Indian killed four bald eagles on the reservation, the Court held that the Eagle Protection Act had abrogated defendant's treaty right to hunt bald eagles and thus did not reach the issue of whether the ESA had also abrogated tribal treaty rights).

75. *See* 16 U.S.C. § 1536 (Section 7 of the ESA requires federal agencies to consult with the Fish and Wildlife Service or National Marine Fisheries Service prior to undertaking any action, in order to determine whether the action would affect a listed species or its critical habitat); 16 U.S.C. § 1538 (Section 9 of the ESA prohibits any activity by "any person" that would harm an endangered or threatened species, or destroy the critical habitat of such a species).

Indians from harming endangered or threatened species on reservation lands.[76]

Like NEPA, the ESA has been used both to further tribal interests and to defeat them. In several cases, Indian nations have brought suit under the ESA to protect their environmental interests, although these actions have often been unsuccessful.[77] More often, however, Indian nations have found their plans for economic development thwarted by the constraints of the ESA. For example, four Indian tribes in the San Juan River Basin—the Jicarilla Apache, Navajo, Southern Ute, and Ute Mountain Ute—are currently protesting the actions of the Department of Interior, under the ESA,[78] which have delayed the construction of two large water development projects in the San Juan River Basin that are vital to the tribes' development.[79] The Animas-La Plata Project is an essential part of the settlement of the Southern Ute and Ute Mountain Ute water claims, and the Navajo Irrigation Project will partly fulfill obligations of the U.S. government to the Navajo Nation under the 1868 Treaty.[80] Although certain fish species in the San Juan River are endangered because of non-Indian development, such as diversion of water for non-Indian water projects, the Indian nations, who have historically been neglected, are

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76. *See, e.g.*, United States v. Billie, 667 F. Supp. 1485, 1497 (S.D. Fla. 1987) (holding that the ESA barred noncommercial hunting of panthers by American Indians in Florida and finding that the ESA did not unconstitutionally infringe on free exercise of religion because panther hunting was not an "indispensable" practice); *Dion*, 476 U.S. 734, 746 (upholding federal prosecution of Indian who shot four bald eagles on reservation, under both the Eagle Protection Act and the ESA).

77. *See, e.g.*, Pyramid Lake Paiute Tribe v. United States Dep't of the Navy, 898 F.2d 1410 (9th Cir. 1990) (where tribe brought action to protect an endangered fish species, the cui-ui, against diversions of water from Pyramid Lake used to irrigate land in an outlease program, the court held that the Navy's outlease program did not violate the ESA); Tribal Village of Akutan v. Hodel, 869 F.2d 1185 (9th Cir. 1988) (Alaskan tribal village brought action under NEPA and the ESA to enjoin oil and gas lease sale in an area with important fisheries and which was home to a number of endangered species including the Pacific gray whale, and court upheld Secretary's decision to lease).

78. *See* Letter from the Southern Ute Tribe, the Ute Mountain Ute Indian Tribe, the Navajo Nation, and the Jicarilla Apache Indian Tribe to Bruce Babbitt, Secretary of the Interior (June 28, 1994) (on file with author) (giving notice of intent to sue under the Endangered Species Act, the National Environmental Policy Act, and the Administrative Procedure Act). See also Adrian N. Hansen, *The Endangered Species Act and Extinction of Reserved Indian Water Rights on the San Juan River*, 37 ARIZ. L. REV. 1305 (1995) for a thoughtful discussion of the tribes' position in this dispute and the impacts of the ESA on tribal reserved water rights.

79. *See* Critical habitat—fish and wildlife, 50 C.F.R. § 17.95 (1994) (promulgating Fish and Wildlife Service's final rule on determination of critical habitat for the Colorado River Endangered Fishes).

80. *See* Stanley M. Pollock, *Native Fishes vs. Native Americans: Endangered Species in Conflict*, GREENFIRE REP. 3-4 (Sept.-Oct. 1992).

forced to bear the burdens imposed by the ESA.[81] The San Juan case raises issues of distributive justice[82] as well as environmental stewardship: Who should decide whether the interests of the endangered species prevail over the interests of the Indian nations?

Indian nations are relative latecomers to the economic development that has characterized most of the United States. Some have argued that the constraints imposed by the ESA and other environmental statutes are a luxury that developed nations may be able to afford, but may not be available to those who have not yet developed.[83] In 1994, for example, the Navajo Nation's timber enterprise was shut down due to concerns raised under the ESA about the Mexican Spotted Owl.[84] Because the Navajo Nation has high unemployment and lacks a diversified economy, the impact of this closure was extreme. In fact, the timber enterprise was the sole source of economic revenue for one of the largest communities on the reservation. On the other hand, some tribal members protested the development of timber and water resources, asserting that such development is inconsistent with traditional tribal values.[85]

The issues raised by application of the ESA and NEPA to tribal lands indicate both the constraints of federalism on tribal environmental self-determination and the clash of traditional indigenous values with Anglo-American values. As one scholar has noted, the EIS requirement of NEPA "mandate[s] both the creation of knowledge—including knowledge about society, or 'social knowledge'—and the use of that knowledge in

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81. *Id.* Stanley Pollock in fact argues—perhaps tongue-in-cheek—that Native Americans are also an "endangered species" and the ESA therefore requires a different approach when tribal interests are impacted. *Id.* This point raises the issue of distributive justice.

82. The concept of distributive justice, of course, is quite complex and has been interpreted differently by various scholars. *See* ROBERT COOTER & THOMAS ULEN, LAW AND ECONOMICS 120-21 (1988). I use the term *distributive justice* in its most fundamental sense: "that the law will promote the equal distribution of wealth and resources throughout society." *Id.* at 120.

83. *See, e.g.*, James L. Huffman, *An Exploratory Essay on Native Americans and Environmentalism*, 63 U. COLO. L. REV. 901, 916 & n.62 (1992) (arguing that environmental protection has historically been a "luxury good" that only relatively wealthy nations are able to support).

84. *See* Bill Donovan, *Navajo Forest Products Industry Closes Down Indefinitely*, NAVAJO TIMES, July 28, 1994, at A1.

85. *See* Cate Gilles, *Indigenous Networks Concerned About the Environment*, NAVAJO-HOPI OBSERVER, Aug. 5, 1992, at 5 (mentioning efforts of Navajo tribal members to stop logging by the Navajo Forest Products Industry in sacred areas of the Chuska Mountains); Leslie Kaufman, *Loggers, Witches, and the Death of a Navajo Eco-Warrior*, L.A. TIMES MAG., Feb. 13, 1994, at 24 (discussing the efforts of Navajo environmental activist Leroy Jackson to protect old-growth forests on the reservation and his subsequent death, which occured under mysterious circumstances).

public decisionmaking."[86] In our pluralistic society, however, the meaning of "social knowledge" and the methods of using that knowledge in public decision-making vary widely among different segments of society. Because of this, the application of NEPA and the ESA to Indian lands raise difficult problems of policy implementation.[87]

The ESA and NEPA embody general social policies regarding the environment which have been applied to Indian nations and Indian lands with mixed results. The tribal amendments to the major federal environmental statutes, on the other hand, are an example of Congress expressly including the Indian nations within the larger goals of society, with some specific guidelines for this incorporation. Whether expressly or impliedly held to bind the Indian nations, the policies and goals of the federal environmental statutes have become a central part of tribal environmental policy, raising the issue of how Indian nations should reconcile the often disparate values represented by federal and tribal environmental policies.

## II. THE CHALLENGES OF LAW-MAKING AND ENVIRONMENTAL MANAGEMENT

Although environmental protection is a challenging endeavor for all governments, the challenges intensify for tribal governments because protection of the reservation environment requires an articulation of legal jurisdiction as well as a balancing of complex social values in formulating policy goals.[88] Environmental self-determination logically seems to depend upon whether Indian nations are able to set and implement their own policy goals under the federal and tribally-initiated programs. Important questions arise from this proposition, however. For example, do tribal policy goals depend on indigenous values, Anglo-American values, or some combination of the two? To the extent that federal environmental law is founded on a system of moral and ethical values about the environment, how do indigenous values fit into this centralized system? Can we expect environmental laws under different value systems to manifest themselves in different ways? Should we support those

86. James P. Boggs, *NEPA in the Domain of Federal Indian Policy: Social Knowledge and the Negotiation of Meaning*, 19 B.C. ENVTL. AFF. L. REV. 31, 31 (1991).

87. *Id.*

88. For an overview of the complexity that attaches to environmental regulation in Indian country, from a tribal perspective, see Mervyn Tano, *Solid Waste Regulation and Management in Indian Country* (NCAI publication, May, 1990).

differences or advocate centralized federal authority premised on majority values?

American environmental laws reflect the majority-society's conception of the relationship of humans to the land: our environmental laws are thus integrally related to our "land ethic." A "land ethic" is, fundamentally, "a system of thought that relates land" and our use of land "to ideas of right and wrong."[89] Thus, a land ethic is essentially related to a complementary system of "environmental ethics" which helps us analyze the moral relations between human beings and the natural environment[90] and forms a context in which to understand our system of environmental laws. Systems of environmental ethics are comprised of values, which underlie judgments about what is "good"—either morally or materially[91]—and norms, which are designed to place values into operation at the social level by making judgments about certain conduct.[92]

Any discussion of environmental ethics thus requires the articulation of values and norms regarding appropriate environmental use. Many people assume that a land ethic *should* encompass an "ecological understanding" of the land, which in some sense, rebuts the narrow Lockean view that land is "property" and a mere instrument to serve human preferences.[93] However, for purposes of this Article I consider both the "ecological" and Lockean views of the land to be resting on distinct normative judgments and underlying values. Clearly, tribal environmental policy must draw on some concept of what is "good" or "beneficial" for tribal members and lands. This requires application of a land ethic and related system of environmental ethics in formulating tribal law and policy. The more difficult issue is whether tribal environmental regulation evokes, or *should* evoke, an "indigenous land ethic," an "Anglo-American land ethic," or some combination of the two. Moreover, although we are often tempted to speak of the Anglo-American land ethic, the Anglo-American conception and understanding of the

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89. Fred Bosselman, *Four Land Ethics: Order, Reform, Responsibility, Opportunity*, 24 ENVTL. L. 1439, 1440 (1994).

90. *See* SUSAN J. ARMSTRONG & RICHARD G. BOTZLER, ENVIRONMENTAL ETHICS: DIVERGENCE AND CONVERGENCE xv (1993). There are, of course, numerous works on environmental ethics. *See, e.g.*, William T. Blackstone, *Ethics and Ecology*, *in* PHILOSOPHY AND ENVIRONMENTAL CRISIS 16 (William T. Blackstone ed., 1974) (discussing environmental ethics as a philosophical manifestation of the "ecological attitude"); JOSEPH R. DESJARDINS, ENVIRONMENTAL ETHICS: AN INTRODUCTION TO ENVIRONMENTAL PHILOSOPHY (1993) (discussing of the foundational concepts of environmental ethics).

91. *See* WILLIAM K. FRANKENA, ETHICS 48 (1963) (distinguishing "moral values" from "generic values").

92. *Id.* at 8-10.

93. *See* DESJARDINS, *supra* note 90, at 191.

human relationship to the land has, in fact, shifted drastically over the years.[94] Similarly, the traditional land ethics of indigenous peoples have undergone transformation either as a result of colonization or through a voluntary adaptation to meet changing times. Perhaps it is not even possible to define a single Anglo-American land ethic, an indigenous land ethic, or to otherwise dichotomize what may be a continuum of values that indeed intersects at several points.

Professor Robert Williams claims that American environmental law itself has been "colonized by a perverse system of values which is antithetical to achieving environmental justice for American Indian peoples."[95] He argues that the Anglo-American value system "privileges what it labels as 'human values' over 'environmental values'" and fails to recognize "that both sets of values are intimately connected . . . to the complete set of forces which give meaning and life to our world."[96] Implicit in Professor Williams' argument is the assumption that American environmental law incorporates different values and norms than those of indigenous societies. Further, the prevailing values of American society act to disadvantage the rights of Indian peoples to their traditional lands and environments. To illustrate these points, Professor Williams uses the example of the Mount Graham controversy, in which the University of Arizona sponsored a telescope project on a mountain held sacred by some bands of Apaches.[97] According to Professor Williams, Indian nations are forced to conduct themselves within the framework of the dominant value and legal systems, thereby preventing indigenous visions of environmental justice from guiding human conduct toward the environment.

A separate issue, however, is the extent to which indigenous values and legal systems have themselves been transformed by the imposition of centralized federal authority. The comprehensive system of federal law that regulates the environment epitomizes the paradigm of centralized lawmaking which is prevalent in contemporary society.[98] Under this paradigm, "government officials formulate the state's goal, embody the goal in a rule, and force people to conform to it. Information and

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94. Bosselman, *supra* note 89, at 1441.

95. Robert A. Williams, Jr., *Large Binocular Telescopes, Red Squirrel Pinatas, and Apache Sacred Mountains: Decolonizing Environmental Law in a Multicultural World*, 96 W. VA. L. REV. 1133, 1134 (1994) [hereinafter Williams, *Large Binocular Telescopes*].

96. *Id.*

97. *Id.* at 1158-59 (explaining the nature of factionalism at San Carlos by reference to the various different bands that were placed on the reservation by the U.S. Government).

98. *See* Robert D. Cooter, *Structural Adjudication and the New Law Merchant: A Model of Decentralized Law*, 14 INT'L REV. L. & ECON. 215 (1994).

motivation move along a one-way street from top to bottom."[99] Decentralized lawmaking, on the other hand, represents an alternative paradigm which proceeds from "bottom to top."[100]

According to Professor Robert Cooter, one way to accomplish decentralized lawmaking is by enacting customs as law,[101] provided that those customs arise from community norms that are "prescriptive"—for example, there is a consensus among community members that people "ought" to abide by the norms.[102] Furthermore, the norms must evoke a sense of obligation among community members[103] and must also evolve from an "appropriate incentive structure."[104] Notably, Indian nations have traditionally used custom to regulate their indigenous environments and thus have engaged in a form of decentralized lawmaking for many generations, although admittedly colonialism has to some degree impacted indigenous lawmaking systems.[105]

By imposing its centralized system of environmental law on Indian nations, however, the federal government has required Indian nations to adopt the goals and values of the majority-society. As Professor Williams notes, this process often destroys the validity of indigenous values in environmental decision-making.[106] The consequences of this extend both to tribal environmental decision-making on reservation lands and to environmental decision-making on state, federal, and private lands that impacts tribal interests. As the Isleta case and the Havasupai case demonstrate, the environmental values of the majority society can be quite different from those of the Indian nations, and tribal interests in the environment often overlap jurisdictional boundaries.[107]

A starting point in examining the competing values that confront Indian nations is to compare environmental values and norms from the

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99. *Id.*

100. *Id.*

101. *Id.* at 215-16.

102. *Id.* at 217-18.

103. *Id.* at 218.

104. *Id.* at 227. "An appropriate incentive structure is one in which incentives for signaling by individuals align with the public good." *Id.* at 215. The market also represents a form of decentralized authority, and one which is presumably consistent with "an appropriate incentive structure." *Id.* Custom, as it has been used by indigenous peoples, regulates traditional economies, but it is not clear whether this would also provide "optimal markets" in the contemporary sense.

105. *See* Randy Kapashesit & Murray Klippenstein, *Aboriginal Group Rights and Environmental Protection*, 36 MCGILL L.J. 925, 956-57 (1991); *see also infra* notes 372-84 and accompanying text.

106. *See* Williams, *Large Binocular Telescopes*, *supra* note 95, at 1134.

107. The reciprocal point, of course, is also true: state and federal interests often overlap jurisdictional boundaries.

Anglo-American perspective and from various indigenous perspectives.[108] In attempting to understand how Anglo-American environmental value systems differ from indigenous value systems, one needs to explore whether there is any overlap, where the crucial differences arise, and how our legal system treats those differences.

Adherents of "ecofeminism" have drawn on Carol Gilligan's assertion that men and women have a different conception of morality[109] to demonstrate that the feminist ethic of "care" or "responsibility" would promote a more holistic and sensitive treatment of the environment than the male ethic of dominance and "rights."[110] Similarly, Professor Williams indicates that traditional indigenous environmental ethics would promote environmental justice for Indian people as well as the environment.[111] Do traditional indigenous systems of environmental ethics carry a different conception of morality? If so, does this enhance tribal arguments for rights to the environment? Does it limit their actions to those that are consistent with the traditional concepts of morality? Does successful environmental stewardship *require* a different morality than that advocated by Anglo-American environmental policy?

The notion of tribal environmental self-determination suggests that the difficult choices about economic development and land use on the reservation should be the product of tribal decision-making rather than federal mandate. However, we must examine this proposition carefully and define, if possible, the unique role that traditional indigenous values can play in formulating environmental policy and establishing systems of law that are compatible with the current economic needs of Indian people.

## III. EURO-AMERICAN LAND ETHICS AND THEIR RELATION TO ANGLO-AMERICAN ENVIRONMENTAL LAW AND POLICY

A comprehensive environmental ethic deals broadly with concepts of moral rights and interests, and with our connection to other aspects of our

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108. Although I focus on "indigenous perspectives," I want to emphasize that indigenous views on the environment are not necessarily uniform or in consensus. *See infra* Part IV.B. Each of the many American Indian nations, for example, has a complex world view and unique understanding of the environment. This Article draws on some essential similarities in those views to fill out the discussion of "tribal environmental policy," but does not attempt to speak *for* these many nations regarding their own unique visions of environmental stewardship.

109. CAROL GILLIGAN, IN A DIFFERENT VOICE 2 (1982).

110. *See* Jim Cheney, *Ecofeminism and Deep Ecology*, 9 ENVTL. ETHICS 115, 120 (1987) (citation omitted).

111. *See generally* Williams, *Large Binocular Telescopes*, *supra* note 95.

natural world.[112] In terms of environmental policy, an environmental ethic "justifies" our actions towards the earth and our natural environment. Religion and world view are thus integrally related to our conceptions of a land ethic and environmental ethics. It is important to note at the outset that a discussion of Anglo-American environmental ethics necessarily requires a discussion of competing traditions and policies. The emerging environmental movement in America, for example, draws on newer philosophies such as "deep ecology" and "ecofeminism" that are rooted in different values than those that guided land use and development for nearly two centuries of this nation's history.[113] For the most part, I will examine the dominant environmental policies that have prevailed throughout this nation's history and their philosophical underpinnings, although I acknowledge the possibility that alternative environmental philosophies will one day command more than a peripheral following.[114]

The roots of American environmental policy are embedded in the religious and secular traditions of Western Europeans. However, American environmental policy has assumed a character distinct from its European antecedents. This is due, in part, to America's youth as a nation and the fact that only a century ago the American "frontier" was considered a potentially unlimited source of wealth for land-hungry settlers.[115] The vast resources of a "new continent" contributed to the

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112. *See generally* J. BAIRD CALLICOTT, IN DEFENSE OF THE LAND ETHIC: ESSAYS IN ENVIRONMENTAL PHILOSOPHY (1989).

113. Deep ecology calls for a "nonhierarchical, nondomineering attitude toward nature." *See* Cheney, *supra* note 110, at 116. Deep ecology perceives nature as having inherent moral value and perceives the relationship of humans to nature as being holistic and interdependent. *Id.* at 117. Ecofeminism claims that "the domination of women and the domination of nature are 'intimately connected and mutually reinforcing.'" *Id.* at 116. Ecofeminists are not only nonhierarchical, they are "antihierarchical" and see women as having a unique role in overcoming the alienation between humans and the rest of nature. *Id.* Ecofeminism apparently builds on the idea, advanced by Carol Gilligan, among others, that women and men have different conceptions of morality. *Id.* at 120. For example, Gilligan perceives the morality of men as "the justice approach" or "the rights conception," while that of women is "an ethic of care" or "responsibility." *Id.*; *see also* DESJARDINS, *supra* note 91, at 211-32 (discussing deep ecology) and 235-59 (discussing social ecology and ecofeminism); *see generally* Frank B. Golley, *Deep Ecology from the Perspective of Ecological Science*, 9 ENVTL. ETHICS 45 (1987); Freya Matthews, *Conservation and Self-Realization: A Deep Ecology Perspective*, 10 ENVTL. ETHICS 347 (1988); Karen J. Warren, *Feminism and Ecology: Making Connections*, 9 ENVTL. ETHICS 3 (1987); Michael E. Zimmerman, *Feminism, Deep Ecology, and Environmental Ethics*, 9 ENVTL. ETHICS 21 (1987).

114. Environmental ethics has become a complex discipline, and one that intersects with layers of theory from other academic disciplines, such as ecology and economics. The purpose of this Article is to sketch those interrelationships as they apply to the concept of tribal environmental self-determination, and not to probe the theoretical depths of environmental ethics or its companion disciplines to root out potential inconsistencies and grey areas, of which there are many.

115. This is what Professor Bosselman refers to as the "economics of superabundance." Bosselman, *supra* note 89, at 1476.

ethic of short-term intensive use that has marked environmental policy in the nineteenth and most of the twentieth centuries.[116] Moreover, Americans were firm believers in individual rights and the sanctity of personal freedom. Governmental control has long been suspected as being a potential source of infringement on individual liberties.[117] American society continues to resist changing established policies of environmental use, even though current circumstances present a realistic threat of permanent environmental damage. This Article explores the religious and secular roots of Anglo-American environmental ethics, as well as the impact of these ethics on environmental policy.[118]

### *A. The Influence of Christianity*

Professor Lynn White, and other scholars, have suggested that Christianity bears a major responsibility for the current environmental crisis in Western society.[119] Professor White claims that the roots of our environmental crisis stem from the ancient Hebrew renunciation of fertility cults and the early Christian adoption of a "spirit-matter" dichotomy learned from the Greeks.[120] The "Pythagorean-Platonic concept of the soul

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116. Indeed, as William Cronon notes, the practice began much earlier; English settlers considered New England a place of nearly limitless abundance and practiced wasteful conduct during the colonial period. *See* WILLIAM CRONON, CHANGES IN THE LAND: INDIANS, COLONISTS, AND THE ECOLOGY OF NEW ENGLAND 168-69 (1983).

117. *See, e.g.*, Erik Larson, *Unrest in the West*, TIME, Oct. 23, 1995, at 52 (analogizing the current states' rights movement in the West to the Sagebrush Rebellion); Richard Lacayo, *This Land is Whose Land?* TIME, Oct. 23, 1995, at 68 (noting the Western states' "ancient resentment of Washington's rule").

118. The recent resistance to efforts to amend antiquated mining and grazing laws illustrates this. *See* John Cushman, Jr., *House Passes Measure to Limit Use of Public Lands for Mining*, N.Y. TIMES, Nov. 19, 1993, at A1 (commenting on legislative efforts to revamp the 1872 mining law, which Wyoming Rep. Craig Thomas calls "simply another follow-up on the Babbitt-Clinton assault on the West"). The Mining Law of 1872 enables mining companies to acquire BLM lands at a fraction of their value, and also provides exemption from many environmental regulations. *Id.* For example, as one commentator notes, "[i]n 1983, a company patented 310 acres in a resort area outside Las Vegas, ostensibly for sand and gravel mining. It paid a total of $775 for land the BLM later appraised at $1.24 million." Richard Conniff, *Once the Secret Domain of Miners and Ranchers, the BLM Is Going Public*, SMITHSONIAN, Sept. 1990, at 30, 42. Proposals to amend antiquated grazings laws have met similar resistance. *See* Margaret Kriz, *Turf Wars*, THE NATIONAL JOURNAL, May 22, 1993, at 1232.

119. Lynn White, *The Historical Roots of Our Ecological Crisis*, 155 SCIENCE 1203, 1205-07 (1967). *See also, e.g.*, JOHN B. COBB, JR., IS IT TOO LATE? A THEOLOGY OF ECOLOGY 92 (1972) (agreeing that Christianity is responsible for the environmental crisis, but asserting that this can be overcome by looking to other passages in the Bible that speak to more modern ecological attitudes).

120. White, *supra* note 119, at 1205-06. It should be noted that Professor White did not find this situation to be insurmountable; he recommended that Christianity would be improved by adopting the view of nature held by Saint Francis of Assisi, an assertion that has been challenged by other

as immortal and otherworldly, essentially foreign to the hostile physical world" became encompassed within early Christianity and had a considerable influence on European conceptions of nature.[121] Accordingly, Christianity conceived of the universe as hierarchical, consisting of: "heaven", the ethereal, spiritual realm; "earth", the mundane physical world of toil and suffering; and "hell", the netherworld of agony and pain suffered by those who fell from divine grace. Humans on earth could hope for spiritual salvation in heaven and were trained to seek this salvation from God indirectly through prayer and good deeds. However, God was not directly identified with the earth or any other part of nature. In fact, human beings (at least European Christians) were thought to be created in God's image and endowed with special powers of rationality and morality which set the human species apart from the rest of nature.[122]

One aspect of Christian doctrine that is particularly illustrative of the alienation of man from the rest of nature is the idea that man has received "dominion" over the rest of nature.[123] In Genesis, man, as the "master and commander" of the animals, is commanded to "subdue the earth" and exercise dominion over the earth and every living thing upon the earth.[124] According to Professor John Cobb, the Judeo-Christian tradition has reinforced the idea that every human individual is of "absolute value."[125] This idea, combined with the view that man should dominate the natural world, has promoted the belief that the earth's only value is in its usefulness to man: "Only man has intrinsic worth. The value of the subhuman world is purely instrumental."[126]

This instrumental view of the earth appears to underlie the Anglo-American fixation with private property rights. As William Blackstone wrote over two centuries ago:

> There is nothing which so generally strikes the imagination, and engages the affections of mankind, as the right of property; or that sole and despotic dominion which one man claims and exercises over the

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scholars. *See, e.g.*, VINE DELORIA, JR., GOD IS RED: A NATIVE VIEW OF RELIGION 83 (1992) [hereinafter DELORIA, GOD IS RED].

121. *See* CALLICOTT, *supra* note 112, at 182.

122. *Id.* at 183.

123. *See* DELORIA, GOD IS RED, *supra* note 120, at 82.

124. *Genesis* 1:28; *see also* DELORIA, GOD IS RED, *supra* note 120, at 82.

125. *See* COBB, *supra* note 119, at 35.

126. *Id.*

> external things of the world, in total exclusion of the right of any other individual in the universe.[127]

Blackstone draws on the language in Genesis to assert that "[t]he earth . . . and all things therein, are the general property of all mankind, exclusive of other beings, from the immediate gift of the Creator."[128] Vine Deloria asserts that the Bible's dominion language was adopted by Western peoples to justify their economic exploitation of the earth.[129] Other scholars dispute this reading of the dominion language, claiming that it merely implies a stewardship role for man.[130] Whatever the correct interpretation, the dominion passage does illustrate the hierarchical separation of man from the "lower orders" of creation, a viewpoint apparently universally shared by even the more ecological Christians, including St. Augustine and St. Thomas Aquinas.[131]

Christianity's hierarchical[132] perception of the universe was also characterized by "dualities"—good and bad, sacred and secular, male and female, public and private, wilderness and civilization—which accentuated the alienation of human beings from the natural environment.[133] As Vine Deloria notes, "the Genesis account [of creation] places nature and nonhuman life systems in polarity with us, tinged with evil and without hope of redemption except at the last judgment."[134] J. Baird Callicott

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127. WILLIAM BLACKSTONE, COMMENTARIES ON THE LAWS OF ENGLAND 2-11 (1766), *excerpted in* ROBERT C. ELLICKSON ET AL., PERSPECTIVES ON PROPERTY LAW 37-38 (2d ed. 1995).

128. *Id.* at 38.

129. DELORIA, GOD IS RED, *supra* note 120, at 82.

130. *See, e.g.*, Robert H. Ayers, *Christian Realism and Environmental Ethics*, *in* RELIGION AND ENVIRONMENTAL CRISIS 154, 155 (Eugene C. Hargrove ed., 1986).

131. *Id.* at 155-58.

132. Callicott points out that the idea of a natural hierarchy is an Aristotelian legacy: "Aritotle's theology required that the lower forms exist for the sake of the higher forms. Since human beings are placed at the top of the pyramid, everything else exists for the sake of them." CALLICOTT, *supra* note 112, at 184.

133. Professor Desjardins notes, for example, that the Puritan model "encouraged an aggressive and antagonistic attitude toward the wilderness. The wilderness must be tamed. New land must be conquered. Humankind is called to subdue and master the wilderness. The land is 'improved' and its value enhanced when woodlands are cleared, wetlands drained, soil tilled and permanent settlements established." DESJARDINS, *supra* note 90, at 170. The Puritan model gradually gave way to the Lockean model, which perceived "the wilderness as given by God to all people in common, waiting for an individual with initiative and ambition to go out and work it and in the process convert it into private, personal property." *Id.* While perhaps not as antagonistic toward the wilderness as the Puritan model, the Lockean model also supports the alienation of humans from the land with the idea that human labor converts land into something of value. *See* CRONON, *supra* note 116 (offering an excellent and detailed account of Puritan conduct in New England and the impact on the natural environment).

134. DELORIA, GOD IS RED, *supra* note 120, at 87.

describes man's relationship to nature as "a lonely exile sojourning in a strange and hostile world, alien not only to his physical environment, but to his own body, both of which he is encouraged to fear and attempt to conquer."[135] The alienation expressed in Christianity had a counterpart in the European cultural world view that placed paramount value on individual endeavor and inspired a "spiritual and intellectual alienation" from the body "as well as from nature."[136] This intellectual alienation became "the galvanizing force for the celebration of the individual in a variety of endeavors: scientific thought, philosophy, and religion."[137] The celebration of individual enterprise became particularly apparent during the Industrial Revolution when progress, machination, labor, cultivation, and civilization were identified as human "goods" and the state of nature as an "evil."[138]

In the New World, this European perception of alienation was transposed onto Native American peoples and used as a justification for dispossessing Indian nations of their lands.[139] Although the eighteenth century Romantics viewed American Indians as representing a "noble and free" way of life,[140] American policy was largely founded on the Hobbesian tradition: that the Indian "in a state of nature" lived a brutal, harsh existence and this way of life was something to be "overcome, repressed, and destroyed."[141] Thus, the American campaign to "civilize" the "savage" was rooted in the Hobbesian tradition's dark portrayal of man in a state of nature. Indians, like the wilderness, were something to be overcome, tamed, and destroyed to the extent necessary to achieve these goals. As President George Washington declared in 1783: "[T]he

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135. CALLICOTT, *supra* note 112, at 182.

136. Williamson B.C. Chang, *The "Wasteland" in the Western Exploitation of "Race" and the Environment*, 63 U. COLO. L. REV. 849, 854 (1992).

137. *Id.*

138. *Id.*

139. *See* Robert A. Williams, Jr., *Documents of Barbarism: The Contemporary Legacy of European Racism and Colonialism in the Narrative Traditions of Federal Indian Law*, 31 ARIZ. L. REV. 237, 251 (1989) [hereinafter Williams, *Documents of Barbarism*] (discussing the impact of John Locke's work as a "legitimating discourse of a civilized society of cultivators' superior claim to the 'waste' and underutilized lands roamed over by savage tribes"); CRONON, *supra* note 116, at 56. Cronon notes that English colonists used "Indian hunting and gathering as a justification for expropriating Indian land" and quotes one colonist as stating that, "[b]ecause the Indians were so few, and 'do but run over the grass, as do also the wild foxes and wild beasts,'" their land was "'spacious and void,' free for English taking." *Id.*

140. The Romantic tradition was also more benevolent toward nature, viewing the wilderness as "a symbol of innocence and purity." DESJARDINS, *supra* note 90, at 171.

141. Christopher Vecsey, *American Indian Environmental Religions*, *in* AMERICAN INDIAN ENVIRONMENTS: ECOLOGICAL ISSUES IN NATIVE AMERICAN HISTORY 3 (Christopher Vecsey & Robert Venables eds., 1980) [hereinafter Vecsey, *Environmental Religions*].

gradual extension of our Settlements will as certainly cause the Savage as the Wolf to retire; both being beasts of prey tho' they differ in shape."[142]

It is probable, of course, that even during this early period, alternative traditions existed in European culture that perceived the environment as "sacred" rather than "profane." As Professor Williamson Chang notes, this would have important implications because when "the environment is presumptively 'sacred' as opposed to 'profane,' human endeavor is *limited* to stewardship."[143] Nature is not a "stage for heroic deeds," as in the Western individualist tradition; rather "Nature is heroic in itself."[144]

In fact, some scholars have disputed the assertion that orthodox Christianity has embodied a monolithic disdain for nature.[145] Professor Attfield argues that the belief that people are "stewards of the earth" and responsible for the condition of the earth and its human as well as non-human inhabitants has been a central feature of the Judeo-Christian tradition.[146] Attfield points to two ancient traditions within Christianity that stress a positive relationship between humans and the natural environment: the stewardship tradition involved the belief that "people are entrusted with a duty to preserve the earth's beauty and fruitfulness"; the "tradition of Cooperation with Nature" embodied the view that "mankind should endeavour to develop and perfect the natural world in accordance with its potentials."[147] Although certain strands of Christian teaching may have fostered a view of man as being apart from nature and concerned with salvation in heaven rather than upon earth, at least throughout the patristic and medieval periods there was a sense of responsibility toward the earth and the features of the natural world.[148] Indeed, Attfield finds in European morality and religious tradition the roots of a "tenable environmental ethic,"[149] apparently agreeing with Professor Chang that

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142. Statement of George Washington to James Duane, Sept. 7, 1783, *in* DOCUMENTS OF UNITED STATES INDIAN POLICY 2 (Francis Prucha ed., 2d ed. 1990).

143. Chang, *supra* note 136, at 856 (emphasis added).

144. *Id.*

145. *See generally*, JOHN PASSMORE, MAN'S RESPONSIBILITY FOR NATURE (1974) (finding so much contradiction in the history of Christianity and Western civilization that it is impossible to say that Christianity has caused an environmental crisis, but arguing that the adoption of a "land ethic" would require the abandonment of Christianity and Western tradition).

146. ROBIN ATTFIELD, THE ETHICS OF ENVIRONMENTAL CONCERN 45 (1983).

147. *See id.* at 36.

148. *Id.* at 37.

149. *Id.* at 46.

"much of the spiritual power of the Western environmental movement lies in rediscovery of a common archetype with indigenous people."[150]

If it is true that Christianity encompasses a tradition of environmental stewardship, why have Europeans acted to place the global environment in an "ecological crisis" through long-standing policies that condone environmental destruction for economic profit? Lewis Moncrief places the blame for Western alienation and dislocation from the environment on capitalism and the growth of democracy rather than on Christianity.[151] Thus, the outgrowth of capitalism and democracy[152]—urbanization, industrialization, population growth, rise of private ownership of resources, science, and technology—have promoted an exploitive attitude toward nature that is independent of any religious doctrine.[153]

Karl Marx also criticizes capitalism as promoting the estrangement of man from his "species" and sees private property as an outgrowth of "estranged labour."[154] Religion is but a manifestation of man's alienation from himself, according to Marx, who writes: "[t]he gods in the beginning are not the cause but the effect of man's intellectual confusion."[155] Other scholars, such as Max Weber, point to Protestantism, which embodies an ethic of radical individualism, as generating the exploitive world view characteristic of industrialized Europe and America.[156] Weber asserts that an important function of religion is to legitimize and even promote certain social activities. According to Weber, "the Protestant ethic encouraged industry, hard work, thrift, and the investment of capital in businesses other than one's own."[157] Thus, man becomes "dominated by the making of money, by acquisition as the ultimate purpose of his life,"[158] thereby

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150. Chang, *supra* note 136, at 852.

151. *See, e.g.*, Lewis W. Moncrief, *The Cultural Basis for our Environmental Crisis*, 170 SCIENCE 508 (1970).

152. Another project, which I do not delve into here, is whether democratization has an overall positive effect on environmental protection, or a negative effect. An examination of the changes in values that democratization promotes, along with the new institutions (for example, the free market) that it establishes, would provide interesting data for such an examination.

153. Moncrief, *supra* note 151, at 509.

154. *See* KARL MARX & FREDRICK ENGELS: THE GERMAN IDEOLOGY 18-19 (C.J. Arthur ed., 1970).

155. *Id.* at 18.

156. *See* MAX WEBER, THE PROTESTANT ETHIC AND THE SPIRIT OF CAPITALISM (1st ed. 1958). I am grateful to my colleague, Jeffrie Murphy, for calling my attention to the work of Karl Marx and Max Weber on capitalism, alienation, and religion.

157. Delores J. Huff, *The Tribal Ethic, The Protestant Ethic, and American Indian Economic Development*, *in* AMERICAN INDIAN POLICY AND CULTURAL VALUES: CONFLICT AND ACCOMODATION 75, 76 (Jennie R. Joe ed., 1986).

158. WEBER, *supra* note 156, at 53.

promoting capitalism as the guiding ethic for human behavior. Significantly, Weber felt that the development of bureaucracy followed on the heels of capitalism, leading toward "rationalization, or a gradual disenchantment with custom and tradition."[159] Man was destined to become "the master of his own fate and environment by organizing his efforts unemotionally and rationally. He would reject the supernatural and conquer the environment."[160]

Thus whether or not Christianity was the *source* of the exploitive attitude toward nature, it was undoubtedly used to sanction capitalistic enterprise and science-based technology,[161] promoting widespread social acceptance of this divergent attitude toward the environment.[162] Moreover, the capitalistic enterprises of the European nation-states have been used as tools of colonization against indigenous peoples throughout the world, raising issues of both racial and environmental justice.[163] Christianity and industrialization have clearly been responsible for legitimizing certain values about environmental use and the relationship of human beings to the natural world.[164] However, these overarching values became incorporated

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159. Huff, *supra* note 157, at 77.

160. *Id.*

161. The point here is that while Christianity may not be a direct source of a certain environmental attitude, its teachings have led to the implementation of such an attitude through law and economics. This is roughly analogous to Professor Robert Williams' observation that Christian doctrine "generated a large corpus of legal opinions and theories on the rights and status of infidel peoples," which in turn became incorporated into the Doctrine of Discovery and its implementation in federal Indian law. *See, e.g.*, Robert A. Williams, Jr., *Columbus's Legacy: Law as an Instrument of Racial Discrimination against Indigenous People's Rights of Self-Determination*, ARIZ. J. INT'L & COMP. L., Fall 1991, at 51, 57 (1991). *See also* ROBERT A. WILLIAMS, JR., THE AMERICAN INDIAN IN WESTERN LEGAL THOUGHT: THE DISCOURSES OF CONQUEST (1990); Robert A. Williams, *The Medieval and Renaissance Origins of the Status of the American Indian in Western Legal Thought*, 57 S. CAL. L. REV. 1, 1-5 (1983).

162. *See* ATTFIELD, *supra* note 146, at 43-44.

163. *See* Chang, *supra* note 136, at 853. *See also* Williams, *Documents of Barbarism*, *supra* note 139, at 246-50. As Professor Chang notes, "the extension of eurocentric thinking throughout the world thus created both the ideas of race and nature or the environment." Chang, *supra* note 136, at 851 n.14. "Race was a product of colonialism as it was the means for keeping the colonized from ever obtaining full rights in the European nations while simultaneously demolishing any link with their original indigenous communities." *Id.* The intersection of race and environment in colonialism is inescapable, as the colonies were generally sources of raw materials and labor for the industrial markets of the Western nations.

164. Some scholars would go a bit further to assert that Christianity has led to a view of world history as "the story of the West's conquest of the remainder of the world and the subsequent rise to technological sophistication." DELORIA, GOD IS RED, *supra* note 120, at 108. This seems consistent with the "Manifest Destiny" policy of the expansion era in America, which justified the taking of Indian lands and removal of Indian peoples, but which is consistently extolled as a practical reality of American history. *See* Williams, *Documents of Barbarism*, *supra* note 139, at 256-58.

into a series of more specific land ethics that have governed environmental policy both in Europe and America.

### *B. The Secular Land Ethics*

As Professor Bosselman notes, there are multiple land ethics that have guided land use in both Europe and America.[165] In medieval England, land symbolized order and control by a sovereign. Under the ethic of "order," land ownership gave rise to a social hierarchy[166] and sovereignty manifested itself through power over land. During the medieval period, for example, English law set aside the forests as a "safe abiding place for wild beasts who belong to the woods."[167] Far from being nature preserves, however, the forests were the domain of the sovereign, who alone could exercise control over the wild game within and grant licenses to hunt. As one nineteenth century commentator noted: "A forest . . . was the personal and peculiar privilege of the King, to whom alone pertained the right of appointing a Justice Seat or a Chief Justice, the existence of which was the insignia of a royal domain."[168] Although for many years the forests were used for recreational hunting by the sovereign, in later years British monarchs built ships with the timber and offered it for sale to build new empires across the sea.[169] By the time of Queen Anne, many of the forests were held to have been "disafforested" and the Forest Courts and Forest Law of the medieval period had ceased to exist.[170]

The medieval land ethic was challenged by the rise of economic theory, which was precipitated by the development of markets and by scientific discoveries that facilitated material improvement during the latter half of the eighteenth century.[171] Economic thought responded to the growing belief that scientific progress could lead to dominion over nature and provide for the material needs of a burgeoning population.[172] Adam

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165. Bosselman, *supra* note 89, at 1441.

166. *Id.* at 1450.

167. F.A. INDERWICK, THE KING'S PEACE: A HISTORICAL SKETCH OF THE ENGLISH LAW COURTS 139 (1895). I am grateful to my colleague, Professor Jonathan Rose, for bringing the history of the English Forest Courts to my attention. The sovereign's control over the forests and the game therein is a telling example of the "ethic of order" that characterized medieval England.

168. *Id.* at 140.

169. *Id.* at 164.

170. *Id.* at 165-66.

171. GARY K. MEFFE & C. RONALD CARROLL, PRINCIPLES OF CONSERVATION BIOLOGY 440-41 (1994).

172. *Id.*

Smith, widely regarded as the founder of modern economics, invented the metaphor of the "invisible hand," arguing that "markets induced people to behave in the common interest as if they were guided by a higher authority."[173] Thus, in an era where the authority of the church and the state were beginning to be challenged, Smith and other social philosophers argued that markets linked individuals' efforts to maximize their own well-being to the common good of society without the need for coercive religious or governmental institutions.[174]

Building on the economic critique, David Ricardo, a nineteenth century economist, challenged the restrictive system of land ownership promoted by the ethic of "order" and focused on the economic "windfall" that attached to land ownership under the feudal estate system.[175] Ricardo's argument, which Bosselman calls an ethic of "reform," supported the efforts of middle-class entrepreneurs to gain political power.[176] This argument was used in America to bolster Thomas Jefferson's belief in a more liberal system of land ownership, where the property owner benefitted from labor and cultivation of his own property.[177] Thus, the ethic of reform was compatible with John Locke's labor theory of property, which held that individual effort was a means to perfect property rights.[178]

A competing vision of land use emerged in nineteenth century America with John Muir's ethic of "responsibility," which focused on environmental conservation.[179] Muir's attitude of conservation was a response to the "economics of superabundance" that attached to America, first as a colony for England and then as a young nation.[180] Over time,

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173. *Id.* at 442.

174. *Id.*

175. Bosselman, *supra* note 89, at 1466-67. *See also* MEFFE & CARROLL, *supra* note 171, at 443-44 (explaining Ricardo's model of the relation of food production costs to rents).

176. Bosselman, *supra* note 89, at 1468-69.

177. *See id.* at 1467-69.

178. *See* JOHN LOCKE, SECOND TREATISE OF GOVERNMENT 19 (C.B. Macpherson ed., 1980). Locke's Second Treatise, originally published in 1690 asserts that "every man has a *property* in his own *person*," and thus "[w]hatsoever then he removes out of the state that nature hath provided, and left it in, he hath mixed his *labour* with, and joined to it something that is his own, and thereby makes it his *property*." *Id.* at 19 (emphasis in original). As Professor Macpherson comments, Locke's views on property were premised on his belief that "God had given the earth to men for their subsistence: there was a natural right to life; and therefore each had a natural right to take to himself what was needed for sustaining his life," and therefore, at least in part, these views stemmed from Christianity. *Id.* at xvi.

179. Bosselman, *supra* note 89, at 1476-77.

180. *Id.* at 1476. The economics of superabundance was represented, for example, by the notion that it was unprofitable to utilize any but the best timber and that the rest was merely an impediment to progress, to be "burned or left to rot." *Id.*

Muir's views have become incorporated into an alternative "ecological" land ethic that is all the more notable because of the diverse values it encompasses. For example, Muir believed that land is a "temple," that "God made the world for its own sake, not just for the sake of the human race," and that land has an aesthetic and spiritual value to be protected.[181] In this sense, Muir's ethic of responsibility appears compatible with the stewardship tradition of early Christianity. It can be distinguished from the ethics of order and reform, which are premised on land as a source of political, social, and economic power.[182]

Finally, the ethic of "opportunity," which is based on Jeremy Bentham's utilitarian model of property rights, is premised not on the feudal concepts of tenure and estate, but on notions of rights and obligations.[183] According to Bentham, property is the creation of law and should be given to the person with the strongest lawful expectation of ownership. Benthm's theory of property rights is premised on efficiency, but is compatible with Blackstone's moral justification for private property rights.[184] Because efficiency is achieved by maximizing human happiness, and securing people's expectations is a key component, efficiency is "enhanced by maximizing the landowner's opportunity to use his private property to fulfill the landowner's own human needs."[185]

The ethic of opportunity, with its language of rights and obligations, continues to be a dominant basis for contemporary legal thought.[186] During the early years of America's history, the ethic of opportunity supported the idea of "productive use" of land, thereby promoting the colonization and occupation of native lands by Europeans.[187] Today, the ethic supports the idea of land as a unique commodity that triggers fundamental personal and individual values, such as home ownership and self-sufficiency, which should be protected from intrusive government regulation.[188] The ethic of opportunity illustrates the fact that society's

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181. *Id.* at 1479.

182. *See supra* notes 89-93 and accompanying text.

183. Bosselman, *supra* note 89, at 1488 n.218.

184. *Id.*; *see supra* notes 127-28 and accompanying text.

185. Bosselman, *supra* note 89, at 1489 (emphasis omitted).

186. *See, e.g., id.* at 1494 (discussing Lucas v. South Carolina Coastal Council, 505 U.S. 1003 (1992)).

187. *See, e.g.*, Williams, *Documents of Barbarism*, *supra* note 139, at 256-58.

188. This is particularly apparent in the Supreme Court's recent takings jurisprudence. *See, e.g.*, Dolan v. City of Tigard, 114 S. Ct. 2309, 2310 (1994) (holding that the City's dedication requirements constituted an uncompensated taking of property); Lucas v. South Carolina Coastal Council, 505 U.S. 1003, 1019 (1992) (where subsequent beachfront management legislation barred landowner from erecting permanent habitable structures on his parcels, Court held that "when the owner of real property has been called upon to sacrifice *all* economically beneficial uses in the name

understanding of rights, claims, and appropriate uses are grounded not only in "political and economic structures but also in cultural systems of meanings, symbols, and values."[189]

Notably, the ethic of opportunity is an anthropocentric theory: land is a means to an end—human happiness. This ethic, as opposed to Muir's, is not limited by a notion of responsibility to the land itself. Unlike the ethics of order and reform, however, land is held to represent individual achievement rather than a certain political or social order, although economic and therefore social and political power are certainly concomitants of property ownership. The ethic of opportunity thus corresponds to the longstanding tradition of American individualism. Under this tradition, as Wallace Stegner has noted, "the American community, especially in the West, is an overnight camp. American individualism, much celebrated and cherished, has developed without its essential corrective, which is belonging."[190] The ethic of opportunity thus encapsulates two central features of the dominant American "land ethic": the focus on land as a repository of individual, rather than community, values; and the lack of rootedness in a certain "place."[191]

To the extent that the ethics of order, reform, and opportunity are bereft of a notion of human moral responsibility to the natural environment, one might question whether in fact they represent land "ethics" at all. Under the ethics of order, reform, and opportunity, land

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of the common good, that is, to leave his property economically idle, he has suffered a taking"); Nollan v. California Coastal Comm'n, 483 U.S. 825, 841 (1987) (holding that, while a state may advance its coastal access program by exercising its eminent domain power and paying for access easements, it could not compel residents to support the program by conditioning rebuilding permits upon granting of easement). Another example is the effort to legislatively demand compensation for government regulation that results in a diminution in value of private property. *See, e.g.*, S. 605, the "Omnibus Property Rights Act of 1995," 104th Cong., 1st Sess., (requiring compensation for private property owners when federal regulatory or administrative action "diminishes the property's fair market value by 33 percent or more").

189. Mark Sagoff, *Settling America or The Concept of Place in Environmental Ethics*, 12 J. ENERGY NAT. RESOURCES & ENVTL. L. 349, 373 (1992) (quoting P. Peters, *Embedded Systems and Rooted Models: The Grazing Lands of Botswana and the Commons Debate*, *in* THE QUESTION OF THE COMMONS: THE CULTURE AND ECOLOGY OF COMMUNAL RESOURCES 177 (B. McCay & J. Acheson eds., 1987)).

190. WALLACE STEGNER, THE AMERICAN WEST AS LIVING SPACE 23 (1987).

191. The concept of "place" implies a sense of belonging, even "community" with a certain area of land and its natural and human features. The American tradition has most often extolled the virtues of conquering new frontiers (even the moon), rather than perfecting a sense of community with existing land. Indeed, many scholars have commented on the lack of commitment to place that has been a primary feature of the nomadic American tradition. *See, e.g.*, Sagoff, *supra* note 189, at 352-53; John W. Ragsdale, Jr., *The Buffalo River: A Jurisprudence of Preservation*, 21 B.C. ENVTL. AFF. L. REV. 429, 431 (1994); Charles F. Wilkinson, *Law and The American West: The Search for An Ethic of Place*, 59 U. COLO. L. REV. 401, 404-05 (1988).

appears to be a means to accomplish a "human good" rather than having an intrinsic moral value in itself, as the ethic of responsibility suggests. However, in the more narrow sense that a land ethic is merely a system of thought that relates land to ideas of right and wrong, perhaps one can understand the ethics of order, reform, and opportunity as linked to a system of values that places humans at the center of thought and land as an accessory to human use. We do not deny that land has meaning or value; we merely argue, in the utilitarian sense, that its value is recognized through property ownership and productive use. In this sense, Muir's ethic of responsibility, and its corollaries in contemporary strands of environmental ethics such as "deep ecology," represent a dramatic departure from other land ethics. For example, the deep ecology movement encompasses the view that "we ought to extend moral consideration to the entire biotic community either . . . by extending to all living elements of that community the right to live and flourish or . . . by regarding the biotic community itself as the primary object of moral regard."[192] The intrinsic moral value of the "land community," under this way of thinking, is quite independent of human use. At this point, it is necessary to explore the development and implementation of these disparate land ethics in American environmental law and policy.

### *C. The Role of Anglo-American Land Ethics in Defining Environmental Policy*

Modern environmental policy is a product of the combined influences of environmental ethics, science, and economics.[193] Aldo Leopold, the noted conservationist, attempted to reconcile these three main tenets of environmental law and policy in his essay, "The Land Ethic."[194] Under Leopold's ecocentric perspective, the relevant community included not only human beings, but the "soils, waters, plants, and animals, or collectively: the land."[195] Leopold viewed man, not as a "conqueror of the land-community," but as merely a member and fellow citizen within it.[196] Leopold's land ethic is founded on a duty of "respect" for the natural

192. Cheney, *supra* note 110, at 116.

193. Bosselman & Tarlock, *supra* note 2, at 847.

194. *See* ALDO J. LEOPOLD, *The Land Ethic*, *in* A SAND COUNTY ALMANAC AND SKETCHES HERE AND THERE 201-26 (1949).

195. *Id.* at 204.

196. *Id.*

community and its members, and thus shares a central commonality with Muir's ethic of responsibility.[197]

Leopold criticizes the idea of land as merely "property," an economic resource that entails privileges without obligations, thus apparently refuting the ethics of order and reform. He recognizes that most members of the land community have no economic value and therefore are not considered important for purposes of legal protection and conservation. He notes that the only way to accomplish these goals is to extend our social conscience from people to land.[198] Leopold rejects the idea that land use decisions can be made on solely economic terms; instead, we must examine each question in terms of what is ethically and aesthetically right, as well as what is economically expedient. "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."[199]

Leopold's holistic focus seems, on one level, to refute the utilitarian efficiency calculus associated with the ethic of opportunity. It also allows Leopold to escape the problems that result from human use of the environment by extending the *same* moral value to all living things as we do to people. For example, under Leopold's land ethic it would be permissible for a human being to hunt deer or harvest timber so long as the stability of the biotic community is preserved. After all, under Leopold's land ethic the "good of the biotic *community* is the ultimate measure of the moral value, [or] the rightness and wrongness, of actions."[200] In this way, Leopold's land ethic is centrally linked to modern understandings of "sustainability" which inform much of contemporary environmental policy.[201]

Significantly, Leopold's holistic view of a universe in balance is derived from "classic ecological theories which posited equilibrium as the highest state of natural systems and viewed ecosystems as inherently fragile and thus vulnerable to human degradation."[202] The "equilibrium theory" of ecology, as it was understood by the late 1960s, became the basis for the comprehensive system of federal environmental laws that is

197. *Id.*

198. *See id.* at 214.

199. *Id.* at 224-25.

200. CALLICOTT, *supra* note 112, at 21 (emphasis in original).

201. *See* MEFFE & CARROLL, *supra* note 171, at 491 (discussing the concept of sustainable development).

202. Bosselman and Tarlock, *supra* note 2, at 847.

still in place today.[203] Importantly, the image of "balanced nature . . . was central to both the Christian and Enlightenment world views."[204] This fact undoubtedly facilitated acceptance of the equilibrium theory as a basis of scientific proof concerning the appropriate use of land and natural resources. Thus, the need to balance the utility of development against the need for some non-development has a basis in both ethical thought and scientific theory and, more specifically, in constructs of ecological and economic rationality. Both types of rational thought are commonly employed in contemporary environmental policy and therefore merit discussion.

"Ecological rationality" may be understood as a way of thinking about "living systems" and the "order of relationships among living systems and their environments."[205] Ecological rationality is based on principles and organizing concepts developed by the science of ecology as well as on a distinctive metaphysical world view that governs the interpretation of those principles.[206] Thus, ecological rationality unifies science with ethics by focusing on principles such as "interdependence" and "holism," which are recognized features of ecosystems as well as moral constructs. Indeed, as many scholars have noted, ethics is a necessary companion to science because science alone merely proves what "is," rather than what our actions "ought" to be.[207] Ecological reasoning is also premised on the principle that "time horizons" are set by "dynamic system processes."[208] Thus, although such ecological reasoning may address short-term issues and problems, the "long-term perspective is dominant" given the reality that ecological time horizons "characteristically extend not only many decades into the future (and the past), but even centuries and millennia."[209]

It seems ironic that scientific development in industrialized nations has now reinforced what many traditional indigenous peoples have practiced for centuries.[210] The principles of interdependence, holism, and planning

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203. *Id.* at 864 (specifically, noting that the National Environmental Policy Act is the "most enduring legal application of ecology" and the "first piece of federal legislation to raise ecology to star status").

204. *Id.* at 864.

205. Robert V. Bartlett, *Ecological Rationality: Reason and Environmental Policy*, 8 ENVTL. ETHICS 221, 229 (1986).

206. *See id.* at 230.

207. *Id.* at 233 (citing DONALD WORSTER, NATURE'S ECONOMY: THE ROOTS OF ECOLOGY 338 (1971)).

208. *Id.* at 230.

209. *Id.* at 231.

210. Vine Deloria discusses this at length in his acerbic critique of Western science, *Red Earth, White Lies: Native Americans and the Myth of Scientific Fact*. VINE DELORIA, JR., RED EARTH, WHITE LIES: NATIVE AMERICANS AND THE MYTH OF SCIENTIFIC FACT (1995) [hereinafter DELORIA, RED

for future generations are all central features of traditional environmental knowledge in many Indian nations.[211] However, contemporary ecologists often categorize traditional knowledge as a "primitive" example of "functional ecological rationality" rather than as a principled union of science and ethics represented by modern notions of ecological rationality.[212] Interestingly, while traditional environmental knowledge generally tracks indigenous social and economic institutions, contemporary ecological rationality often conflicts with legal and economic rationality, which are cornerstones of Anglo-American society.

This is not to say that ecological rationality has not had a significant influence on contemporary legal thought. Indeed, as modern environmental law jurisprudence developed Roscoe Pound's theory of "interest recognition" (the displacement of rights by interests), "ecology helped to place environmental interests on an equal and sometimes higher position in interest balancing."[213] This interest balancing is to some extent reflected in statutes such as NEPA.[214] Still, to a large extent, the scientific and ethical principles encompassed within ecology are driven by economic theory.[215] Thus, economic rationality has played the dominant role in contemporary environmental policy and continues to be a major force in weighing and measuring development and non-development interests.[216]

Economists stress that efficiency is the paramount goal in making public policy choices about environmental use. Thus, in environmental decision-making, the preferred option should be the one that leads to the most efficient use of resources.[217] "Efficiency" is generally defined as the "maximum consumption of goods and services given the available amount

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EARTH, WHITE LIES].

211. *See infra* notes 282-86 and accompanying text.

212. *See, e.g.*, Bartlett, *supra* note 205, at 231. Vine Deloria cites a good example of this when he notes that American Indians' use of songs and dances to improve crops was dismissed as superstitious nonsense until scientific experiments "proved" that music could enhance plant growth. DELORIA, RED EARTH, WHITE LIES, *supra* note 210, at 59.

213. Bosselman & Tarlock, *supra* note 2, at 865.

214. For example, NEPA requires preparation of an EIS for any "major federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(c). The EIS evaluates the anticipated impacts of the projects, the costs and benefits of the project, and compares potential alternatives, thus engaging in a balancing of interests. *See* MCGOVERN, *supra* note 4, at 167; EDITH BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS: INTERNATIONAL LAW, COMMON PATRIMONY, AND INTERGENERATIONAL EQUITY 62-63 (1989) (discussing the EIS requirement in the context of projects involving transboundary pollution).

215. *See* MEFFE & CARROLL, *supra* note 171, at 440.

216. *Cf.* Bosselman & Tarlock, *supra* note 2, at 865.

217. *Cf.* Donald A. Brown, *Ethics, Science and Environmental Regulation*, 9 ENVTL. ETHICS 331, 337 (1987).

of resources."[218] According to this utilitarian approach[219] to environmental policy, the consumer's preferences are the key to establishing policy and the "only values that count or that can be counted . . . are those that a market, actual or hypothetical, can price."[220] Realistically, as Aldo Leopold noted, economic feasibility will always play, and perhaps always *should* play, some role in environmental policy-making.[221] However, the thought that economics should *determine* land use undermines the ethical and scientific principles of ecological rationality.[222]

Furthermore, the fact that the utilitarian calculus itself is not value-neutral raises additional ethical concerns. As one commentator notes, the utilitarian decides "which alternatives will be entertained in the utilitarian calculus, which consequences of a given action will be considered, whose assessments of harms and benefits will be allowed, and what time scale will be used in assessing those consequences."[223] Thus, economic analysis raises the possibility that the distribution of harms under the utility analysis will either disproportionately affect one group of people within society or disregard their interests altogether.[224] Moreover, economic reasoning, with its focus on markets and profit, is generally short-term and localized, often

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218. MARK SAGOFF, THE ECONOMY OF THE EARTH: PHILOSOPHY, LAW, AND THE ENVIRONMENT 27 (1988) (citing JOSEPH J. SENECA & MICHAEL K. TAUSSIG, ENVIRONMENTAL ECONOMICS 6 (2d ed. 1979)).

219. Most scholars equate economic analysis with utilitarianism. This may be misleading with respect to the efficiency criterion. Richard Posner, for example, points out that the efficiency criterion is independent of utilitarian theory because the concept of value is based on "what people are willing to pay for something rather than the happiness they would derive from having it." RICHARD POSNER, THE ECONOMICS OF JUSTICE 60 (1981). Mark Sagoff agrees, arguing that the idea of a consumer's willingness to pay, as used in environmental economics, is not truly utilitarianism because it "does not measure personal satisfaction, but only the results of contingent valuation surveys." ARMSTRONG & BOTZLER, *supra* note 90, at 238 (commenting on MARK SAGOFF, THE ECONOMY OF THE EARTH: PHILOSOPHY, LAW, AND THE ENVIRONMENT (1988)). In any case, however, Posner's reliance on wealth maximization as a normative principle raises serious problems in ethical and moral theory, as Professor Murphy notes in "The Justice of Economics," his insightful commentary on economic theory. *See generally* JEFFRIE G. MURPHY, *The Justice of Economics*, in RETRIBUTION RECONSIDERED: MORE ESSAYS IN THE PHILOSOPHY OF LAW 87-104 (1992).

220. SAGOFF, *supra* note 218, at 27.

221. *Cf.* LEOPOLD, *supra* note 194, at 225. Along the same line, Professor Christopher Stone asserts that economic analysis is the "best single way" to keep in mind compromises between the costs and benefits of development, and therefore it should be an important part of environmental decision-making. *See* CHRISTOPHER STONE, THE GNAT IS OLDER THAN MAN 150 (1993).

222. *See* STONE, *supra* note 221, at 150.

223. Brown, *supra* note 217, at 337.

224. *Cf. id.* at 338 (noting that "utilitarianism is . . . incapable of answering how benefits or costs should be distributed among potential losers and winners").

neglecting the impact of a project on future generations or the global environment.[225]

Many scholars have attempted to overcome these problems of distributive justice by asserting that a balance must be struck between equity, which encompasses considerations of both fairness and the equitable distribution of resources, and efficiency.[226] Professor Tarlock, for example, sees the environmental debate as being essentially a dispute over how natural resources should be used given society's competing goals of economic development and environmental protection.[227] He argues that economic development must be premised on both equity and efficiency because different goals are met by each principle: "[e]fficiency seeks net improvements in the allocation of resources, while equity is a normative judgment about the benefits and burdens of an activity, focusing on the *impact* of efficiency measures on different groups."[228]

Tarlock acknowledges that efficiency considerations have traditionally prevailed over equity considerations in American environmental policy.[229] For example, the establishment of Conservation Districts in the 1920s destroyed the community ditch associations or "acequias" of Hispanic farmers in New Mexico, in many cases resulting in their loss of land ownership.[230] Similarly, the conservation goals of a young America, embodied in the National Park System, were accomplished in many cases by divesting American Indian nations of their treaty lands.[231]

As these examples illustrate, American environmental policy has often failed to recognize the equity interests of so-called "minority" populations such as American Indians and Hispanics. Indeed, they have only recently received popular attention through allegations of "environmental

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225. *See* Blackstone, *supra* note 90, at 36-37.

226. *See, e.g.*, A. Dan Tarlock, *Environmental Protection: The Potential Misfit Between Equity and Efficiency*, 63 U. COLO. L. REV. 871, 875 (1992) (arguing that a "means must be found to accommodate equity and efficiency without sacrificing the basic objectives of environmentalism"). Note, however, that other scholars argue that an efficient allocation of resources, to the extent that it departs from an equitable allocation, has no independent value as a competing moral claim. *See* SAGOFF, *supra* note 218, at 155-56.

227. *See* Tarlock, *supra* note 226, at 872-73.

228. *Id.* at 882 (emphasis added).

229. *See id.* at 883. Tarlock does make specific recommendations to overcome this problem, including giving greater respect to community property rights and according procedural recognition or sensitivity to equity claims. *Id.* at 884.

230. *Id.* at 881.

231. For example, Mount Rushmore National Monument has been blasted into sacred mountains within the Black Hills, which were reserved to the Lakota under the Treaty of 1868 and unconstitutionally removed from Lakota possession by the Act of 1877. *See* United States v. Sioux Nation, 448 U.S. 371, 424 (1980).

racism."[232] The same is not true of ecological interests. In fact, Professors Bosselman and Tarlock claim:

> Environmental regulation transformed ecology from a science to a moral vision of nature. After 1968, ecological-driven environmentalism fundamentally changed the way in which the world is viewed and the standards by which human action is judged. It raised the idea of ecological rationality to parity with economic rationality and thus fatally wounded the western idea that man had a duty to master nature.[233]

Although some would not go so far as to say that "ecological rationality" is now on an equal level with "economic rationality," the two strains of thought have become firmly entrenched in American environmental law and policy. For example, some commentators assert that "NEPA incorporates the basic principle of the Leopoldian ethic," with its focus on preserving ecosystem integrity.[234] However, ecological concerns are only accounted for by NEPA's procedural requirements. The actual decision of whether or not to engage in an activity commands broad discretion and therefore is subject to economic pressure. The ESA is perhaps more responsive to ecological concerns, although clearly economic considerations are the main focus of the current movement to modify or curtail the ESA as it now stands.[235] Drawing on the earlier discussion of the ESA as it applies to Indian lands, it becomes apparent that ecological rationality, economic rationality, and equity have complex implications for tribal environmental self-determination.

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232. *See, e.g.*, Gerald Torres, *Introduction: Understanding Environmental Racism*, 63 U. COLO. L. REV. 839, 840 (1992).

233. Bosselman and Tarlock, *supra* note 2, at 868-69.

234. SAGOFF, *supra* note 218, at 148 (citing George S. Sessions, *Anthrocentrism and the Environmental Crisis*, HUMBOLDT J. SOC. REL., Fall-Winter 1974, at 80); *see also* Bartlett, *supra* note 205, at 239 (asserting that "both substantive and procedural rationality are crucial to understanding the rationale of and evaluating the success or failure of . . . NEPA").

235. *See, e.g.*, S. 768, the "Endangered Species Act Reform Act of 1995," 104th Cong., 1st Sess.; S. 1364, the "Endangered Species Conservation Act of 1995," 104th Cong., 1st Sess.; H.R. 1714, the "Endangered Species Relisting Act of 1995," 104th Cong., 1st Sess.; H.R. 2364, the "Endangered Species Recovery and Conservation Incentive Act of 1995," 104th Cong., 1st Sess.; H.R. 490, the "Farm, Ranch and Homestead Protection Act of 1995," 104th Cong., 1st Sess. (this bill seeks to "amend the Endangered Species Act of 1973 to ensure that constitutionally protected private property rights are not infringed until adequate protection is afforded by reauthorization of the act, [and] to protect against and compensate for economic losses from critical habitat designation").

### *D. Anglo-American Environmental Policy: Some Conclusions*

In seeking to identify the values and norms that have influenced Anglo-American environmental policy, it becomes apparent that American environmental policy is conceptually related to Anglo-American world views and to a tradition of rational thought encompassing both ecological rationality and economic rationality. Unquestionably, however, changes in Anglo-American rational thought have influenced legal policy. As Professor Judith Meyer notes, drawing on the work of Dan Botkin, scientific thought developed from a "view of a divinely ordered, perfect, and unchanging nature, to a view of nature as a machine operating at a steady state, to the contemporary view that incorporates change as a natural and necessary part of the biosphere."[236] Similarly, environmental law has evolved as a response to the perceived need to keep a balance with nature and, presently, to the perceived need for management of human interactions in a dynamic and changing universe.[237]

Despite the fact that the Anglo-American model of economics constitutes a poor fit for its model of ecology,[238] we are currently experiencing a renewed emphasis on economic rationality and the ethic of

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236. Judy L. Meyer, *The Dance of Nature: New Concepts in Ecology*, 69 CHI.-KENT L. REV. 875, 877-78 (1994). As Professors Bosselman and Tarlock note, the equilibrium paradigm has now been rejected by science, and has been replaced with "non-equilibrium ecology," a paradigm which rejects the notion of a "balance of nature": "[c]hange and instability are the new constants. Further, it rejects the Romantic idea that nature should be a place without humans and returns to the problem posed by Genesis, how should one manage the Garden of Eden after it has been invaded by humans?" Bosselman & Tarlock, *supra* note 2, at 869.

237. Because the law has not yet adjusted to take the non-equilibrium paradigm into account, it is not clear what impact this change in ecological theory will have on the law. It is apparent, however, that the non-equilibrium theory places a great deal of weight on the idea of human management. *See, e.g.*, Meyer, *supra* note 236, at 881-82. Thus, the relatively new science of conservation biology seeks to develop "scientific standards that can be applied to regulatory criteria and then to develop on-the-ground management strategies to meet those standards." Bosselman & Tarlock, *supra* note 2, at 870-71. It appears that the recent international attention to traditional environmental knowledge and sustainable development is linked to development of the nonequilibrium paradigm. *See, e.g.*, Helen Endre-Stacy, *Sustaining ESD in Australia*, 69 CHI.-KENT L. REV. 935, 935 (1994) (acknowledging that "[n]on-equilibrium ecology will be an important component of sustainable development discourse because it recognizes, for better or worse, the role of humans in the evolution of dynamic ecosystems").

238. *See* Herman E. Daly, *Steady State Economics*, *in* MEFFE & CARROLL, *supra* note 171, at 444-45. Daly observes that the "worldview underlying standard economics is that the economy is a system isolated from the natural world, a circular flow of exchange value just between businesses and households." *Id.* at 445. Thus, the model is essentially "useless for studying the relationship of the economy to the environment." *Id.* Daly advocates the view of "steady state economics," which would recognize that "economic systems are not isolated from the natural world, but are fully dependent on ecosystems for the goods and services they provide." *Id.*

"opportunity," with its focus on property rights and utilitarian norms.[239] Ecology's transition to the "non-equilibrium" paradigm may either facilitate the ethic of opportunity, because of the paradigm's acceptance of human interaction with the natural environment, or counter it, because of its focus on "sustainable" use.[240] The ethic of opportunity is a rights-based model. However, as Professor Blackstone has noted, our current environmental crisis should cause us to challenge certain "rights" which have been assumed to be basic, including the belief that private ownership of land gives the owner the right to use his land as he wishes.[241]

In any case, the historical survey presented above clearly shows that neither science nor economics is "value free." Although the Western positivist tradition considers science to be "objective" and free from bias; and economists assert that free markets enhance the common good without state coercion both intellectual trends in fact inculcate values of human supremacy over the natural world—profit maximization—and measure efficiency by using short-term, individualist norms. Although the "postmodern" critique of science and economics has begun to probe these underlying values in an effort to "allow the human race to join the web of life as a significant participant rather than an exploiting tyrant,"[242] these longstanding norms have become engrained in the individualist tradition represented by Anglo-American property law, and thus, to some extent limit the more "communitarian" leanings of environmental law.[243]

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239. *See supra* notes 183-84 and accompanying text.

240. There is more work to be done here on exploring that tension. "Sustainable development" is currently the focus of considerable discussion, both at the national and international level. The term is subject to several definitions, however, and it is unclear where the concept stands in relation to "ecological rationality" and "economic rationality." Moreover, it is unclear whether the concept is compatible with existing norms regarding environmental use and protection. Professor Tarlock asserts that sustainable development is a principle that can implement an environmental ethic of "intergenerational equity." Tarlock, *supra* note 226, at 895 & n.113. Professor Lakshman Guruswamy claims, however, that intergenerational equity cannot serve as the "linchpin of sustainable development" without a rich notion of "intragenerational" equity. *Id.* Edith Brown Weiss provides a fascinating construction of intergenerational equity in her book, *In Fairness to Future Generations: International Law, Common Patrimony, and Intergenerational Equity*. *See* WEISS, *supra* note 214. The implications of these issues for Indian nations need to be developed, but this project is reserved for another day.

241. *See* Blackstone, *supra* note 90, at 38. Blackstone also discusses efforts to broaden economic theory to include values presently excluded by private business and the interplay of market forces. *Id.* at 39.

242. Frederick Ferré, *The Postmodern World*, *in* MEFFE & CARROLL, *supra* note 171, at 533.

243. *See* Huffman, *supra* note 83, at 913. As Professor James Huffman notes, although environmental regulations can be "defended in the name of individualism" because health and safety are important concerns for individuals, "the overriding thrust is clearly that the interests of the community [for example, the "public interest"] prevail over those of the individual." *Id.*

American environmental policy continues to reflect a marked tension between science and spirituality, between human interference with the natural world and human stewardship, between what we perceive our needs to be and what consequences we are willing to tolerate. Further, Anglo-American environmental policies and economic systems, which have been transposed onto traditional indigenous societies, have created similar tensions for American Indian environmental policy.

## IV. THE ROLE OF INDIGENOUS LAND ETHICS IN GUIDING TRIBAL ENVIRONMENTAL LAW AND POLICY

The diversity among American Indian people makes defining an "indigenous land ethic" somewhat difficult.[244] Nevertheless, the similarities among indigenous world views regarding the environment cannot be discounted. These similarities are useful for a comparative discussion of Euro-American and indigenous land ethics, and they provide a means to understand the often different values that underlie contemporary tribal environment decision-making. This section will first provide a critical analysis of the methodological difficulties that attach to a discussion of indigenous land ethics and then proceed to discuss the predominant themes about the environment that emerge from indigenous world views. This section thus provides a substantive context to understand the application of indigenous values in contemporary tribal environmental decision-making.

### *A. Indigenous Land Ethics: A Critical Analysis*

Professor J. Baird Callicott, in analyzing indigenous attitudes toward the environment, finds four distinct types of American Indian "land wisdom": "utilitarian conservation, religious reverence, ecological awareness, and environmental ethics."[245] Professor Callicott claims that it is a mistake to conflate these different types of land wisdom by proclaiming that ecological awareness of a distinctive environment

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244. *See* J. Baird Callicott, *American Indian Land Wisdom*, *in* THE STRUGGLE FOR THE LAND: INDIGENOUS INSIGHT AND INDUSTRIAL EMPIRE IN THE SEMIARID WORLD 256 (1990) (commenting on these difficulties in a discussion of indiginous traditional attitudes toward the environment: "land wisdom"). An initial problem is that American Indian peoples represent vastly different cultures interacting within vastly different natural environments. *Id.* at 179. Callicott notes that American Indian peoples are not "united" by common religious or intellectual traditions, as are Europeans. *Id.*

245. *Id.* at 257.

naturally infers an "ecological" attitude or set of values toward the environment.[246]

It is possible, of course, that Professor Callicott has incorrectly perceived the existence of distinct categories of "land wisdom" due to the difficulty in interpreting environmental ethics across cultural boundaries.[247] Indeed, as Professor Callicott himself notes, "the connection between cognitive culture and cultural behavior is complex and tenuous," although cultural ideals may guide behavior, they do not determine it.[248] Furthermore, because documentation of indigenous ethics has generally been a function of anthropology during the nineteenth and twentieth centuries, it is difficult to isolate what is "traditional" from what is a response to Euro-American contact. Moreover, attempts to Christianize indigenous peoples, which date from first contact, have achieved varying degrees of success. Virtually all Indian nations today have some members who identify themselves as Christian,[249] and many other Indian nations have syncretized Christianity and the indigenous religion to some extent.[250] With respect to environmental ethics, therefore, it may not always be

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246. *Cf. id.* (noting that Indians' different world views could give rise to different environmental ethics).

247. *See* Graham B.K. Baines, *Conclusion: Issues in the Application of Traditional Knowledge to Environmental Science*, *in* TRADITIONAL ECOLOGICAL KNOWLEDGE: A COLLECTION OF ESSAYS 68 (Robert E. Johannes ed., 1989). It is difficult to investigate traditional knowledge:

> Irrespective of 'scientific objectivity,' differences of perception, values and language between those who hold traditional knowledge and those who wish to document it and apply it are significant. Unless investigators of traditional knowledge make more effort to understand these differences and to develop effective investigative methods then, at best, incomplete revelations of traditional knowledge will result. At worst, the information obtained will prove misleading.

*Id.* at 68.

248. Callicott, *supra* note 244, at 256.

249. DELORIA, GOD IS RED, *supra* note 120, at 246.

> There might even be the question of what constitutes "traditional" Indian religions when one-third to one-half of contemporary Indians identify themselves (at least nominally or partially) as Christians. To hundreds of thousands of Indians, Christianity is a portion of their traditional religious configuration, however syncretized or compartmentalized with aboriginal features.

Christopher Vecsey, *Prologue*, *in* HANDBOOK OF AMERICAN INDIAN RELIGIOUS FREEDOM 12-13 (Christopher Vecsey ed., 1991) [hereinafter Vecsey, *Prologue*].

250. The Yaqui (Yoeme) people of Southern Arizona and Northern Mexico, for example, invited the Spanish Jesuits to settle on Yaqui lands in 1617 and, over the next 125 years, the economic and religious life of the Yaqui people was influenced by the Jesuits. Today, Yaqui religious culture is a dynamic blend of indigenous traditions and responses to the influence of Jesuit Catholicism. *See* LARRY EVERS & FELIPE S. MOLINA, YAQUI DEER SONGS/MASO BWIKAM 39-40 (1987). Many of the Pueblo peoples of New Mexico have also incorporated some aspects of Catholicism into their cultural traditions, although as Professor Alfonso Ortiz points out with respect to the Tewa, the indigenous religion is still paramount. *See* ALFONSO ORTIZ, THE TEWA WORLD: SPACE, TIME, BEING, AND BECOMING IN A PUEBLO SOCIETY 67-72 (1969).

possible to identify the underlying roots of a particular norm. Furthermore, given the persistence of traditional environmental ethics within those tribes who have adopted some aspects of Christianity,[251] it is impossible to conclude that Christianity is incompatible with traditional indigenous norms.

The problems of cross-cultural interpretation and the attempt to define "traditional" indigenous beliefs raise a common issue: the tendency of non-Indians to glorify Native Americans as existing in "perfect harmony" with nature (the "Noble Savage" resurrected) or, on the other hand, denounce them as being as rapacious to the environment as Europeans (the "Bloodthirsty Savage" resurrected). Both stereotypes are a form of mythology, although they are widely perpetuated by much of the literature on American Indian belief systems.[252]

A classic example of the problems encountered in cross-culturally interpreting a system of environmental ethics from a set of behaviors is Calvin Martin's treatment of the fur trade by northeastern tribes.[253] Martin attempts to reconstruct a "land ethic" among eastern subarctic hunter-gatherer groups and then speculates that their entry into the fur trade and subsequent exhaustion of the animals resulted from a supposed "war" between the Indians and the spirits of the animals. According to Martin, native people held the beaver responsible for the evils brought with the colonists and took "revenge" on the animals by killing them to the point of near-annihilation.[254]

Martin is not alone in reconstructing indigenous social norms to fit concepts of Anglo-American property and environmental theory.[255] However, as many scholars have noted, the errors in his interpretation are

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251. *See generally* ORTIZ, *supra* note 250 (describing the complex religious structure of the Tewa and its integration with the natural world).

252. *See* Gerard Reed, *A Native American Environmental Ethic: A Homily on Black Elk, in* RELIGION AND ENVIRONMENTAL CRISIS 25 (Eugene C. Hargrove ed., 1986). After a truly astonishing opening line ("[a]long with Smokey the Bear and Henry David Thoreau, Native Americans have symbolized a certain environmental concern"), Reed notes that "[t]he Indian-as-ecologist, like the Indian-as-savage, is, in many ways, a stereotype, and stereotypes generally distort actualities," but he concedes that Native Americans almost certainly "developed a more sensitive, gentle, responsible environmental ethic than have the Europeans who succeeded them." *Id.* at 25, 26.

253. *See generally* CALVIN MARTIN, KEEPERS OF THE GAME: INDIAN-ANIMAL RELATIONSHIPS AND THE FUR TRADE (1978).

254. GRINDE & JOHANSEN, ECOCIDE OF NATIVE AMERICA: ENVIRONMENTAL DESTRUCTION OF INDIAN LANDS AND PEOPLES 29 (1995) (discussing MARTIN, *supra* note 251).

255. *See, e.g.*, Harold Demsetz, *Toward a Theory of Property Rights*, 57 AM. ECON. REV. 347, 352 (1967) (arguing that commercialization of the fur trade led to the creation of private property rights among the Montagne in Quebec because of the attendant externalities caused by the fur trade).

particularly obvious.[256] The behaviors engaged in by indigenous groups at a critical point in their history, when traditional societies were being actively destroyed by disease, warfare, loss of traditional territories, liquor, and the spread of European trade goods had little relation to the systems of ethics that had guided behavior before European contact. Faced with a crisis situation, the adaptive behaviors of the indigenous peoples focused on human survival. Contemporary Iroquois leaders claim, for example, that the European strategy of "economic penetration was to stimulate warfare among the native nations . . . which [had] goods for trade."[257] By stimulating warfare and introducing firearms, the Europeans coerced indigenous people into the fur trade and forced them to defend their lands against outside invasion.[258] The fur trade was a post-contact phenomenon that changed, for a relatively brief interval, the relationship between the indigenous peoples of the Northeast and their traditional environments.[259] Notably, the traditional system was largely rehabilitated as the native peoples began to see the negative impacts of this behavior.[260]

The various problems discussed above indicate the need for further research, generated from *within* Native American groups, to define the unique traditions governing their relationship to their indigenous lands and resources.[261] Although there are difficulties in formulating an overall description of "indigenous environmental ethics," a discussion of similarities found among American Indian peoples in their relationship to their natural environments provides a critical context for a comparative analysis of indigenous value systems and those of Anglo-Americans.[262]

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256. *See, e.g.*, CALLICOTT, *supra* note 112, at 195-99; GRINDE & JOHANSEN, *supra* note 254, at 29-30.

257. BASIC CALL TO CONSCIOUSNESS 96-97 (Akwesasne Notes ed., 1978).

258. *Id.*

259. GRINDE & JOHANSEN, *supra* note 254, at 30.

260. *Cf. id.*

261. Here, I echo Winona LaDuke's call for native organizations, communities and nations to focus on "enhancing, recovering, and strengthening" traditional indigenous ecological knowledge, which will facilitate the development of indigenous ecological paradigms to counter the "European industrial worldview" that has been imposed on native people. *See* Winona LaDuke, *Traditional Ecological Knowledge and Environmental Futures*, 5 COLO. J. INT'L ENVTL. L. & POL'Y 127, 147-48 (1994).

262. At the outset, I would like to acknowledge that my treatment of indigenous value systems is intentionally broad, used only for comparative purposes, and rests on general ethnographic accounts. The specifics of indigenous peoples' traditional knowledge are privileged to the members of those distinct cultures, and I do not presume to probe this specialized knowledge or seek to incorporate it within this Article.

Many scholars have commented on the similarities among indigenous people with regard to their attitudes about the environment. *See, e.g.*, Vecsey, *Environmental Religions*, *supra* note 139, at 1; Martha Johnson, *Documenting Dene Traditional Environmental Knowledge*, AKWE:KON J.,

This general analysis is intended neither to "essentialize" disparate experiences into one,[263] nor to imply that Indian nations that depart from a predominant norm are less "Indian."[264] The distinctiveness of each Indian nation's experience is beyond question, although it is often difficult for non-members to understand or differentiate among distinct world views and experiences.

### *B. Traditional Indigenous Environmental Ethics: Finding the Common Ground*

Although there is no established definition of an "indigenous" people, the term generally refers to the "original inhabitants of traditional lands" who maintain their traditional values, culture, and way of life.[265] Those collective values and ways of life are encompassed within the notion of "traditional ecological knowledge," which is "the culturally and spiritually based way in which indigenous peoples relate to their ecosystems."[266] Thus, the concept of traditional ecological knowledge comprises both

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Summer 1992, at 72 (noting that the principles and rules that regulate Dene behavior toward the environment find parallels among many other indigenous cultures); PEGGY BECK & ANNA WALTERS, THE SACRED: WAYS OF KNOWLEDGE, SOURCES OF LIFE 11 (1977); Ronald Trosper, *Traditional American Indian Economic Policy*, 19 AMER. INDIAN CULTURE AND RES. J. 65, 67 (1995).

In comparing indigenous environmental ethics and ethics derived from the Western European tradition, I would like to acknowledge that contemporary philosophers have sometimes attempted to draw on indigenous and Eastern environmental ethics to come up with concepts of duties to the natural world, future generations, animal rights, etc., which have never been formalized as part of the Western Tradition. *See generally, e.g.*, HOLMES ROLSTON, III., ENVIRONMENTAL ETHICS: DUTIES TO AND VALUES IN THE NATURAL WORLD (1988). In some cases these views are consistent with Native American beliefs and in some cases they are not. This Article does not provide a comprehensive discussion of the overlap between alternative Anglo-American environmental attitudes and indigenous attitudes.

263 The reference here, of course, is to what Professor Angela Harris refers to as "essentialism," the notion—as she describes in the case of gender—that "a unitary, 'essential' women's experience can be isolated and described independently of race, class, sexual orientation, and other realities of experience." Angela P. Harris, *Race and Essentialism in Feminist Legal Theory*, 42 STAN. L. REV. 581, 585 (1990). A similar critique could be applied to Indian nations, whose disparate experiences clearly differentiate them from one another in many other contexts.

264 *See, e.g.*, Trosper, *supra* note 262, at 87 (setting forth a "traditional Indian" worldview that guides economic development and discussing Navajo grazing policies as a counterexample to the predominant norms).

265 *See* Simon Brascoupe, *Indigenous Perspectives on International Development*, AKWE:KON J., Summer 1992, at 6, 8.

266 Winona LaDuke, *supra* note 261, at 127. The terms "traditional ecological knowledge" and "traditional environmental knowledge" are often used interchangeably. *See, e.g.*, Johnson, *supra* note 262, at 72.

indigenous systems of environmental ethics and the group's scientific[267] knowledge about environmental use that has resulted from generations of interaction.[268] For example, the traditional ecological knowledge of Dene people of Canada "consists of a spiritually based moral code or ethic that governs the interaction between the human, natural and spiritual worlds," and it "encompasses a number of general principles and specific rules that regulate human behavior toward nature."[269]

Many of these principles, such as the concept of caring for the land for the benefit of future generations, have parallels among other Native

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267. I think it is appropriate to use the term "science" to refer to these indigenous systems of knowledge, although I am sure that some would disagree. In the first place, it is not altogether clear what constitutes "science." *See* Larry Laudan, *Science at the Bar: Causes for Concern*, *in* JEFFRIE G. MURPHY, EVOLUTION, MORALITY AND THE MEANING OF LIFE 149 (1982). Professor Laudan discusses the Arkansas creation law trial with some dismay, questioning the judge's reasoning that "since creationism is not 'science,' it must be religion." *Id.* The judge in that case had found that creationism was "untestable, dogmatic (and thus non-tentative) and unfalsifiable," and therefore unscientific. *Id.* at 150. Laudan disputes these assertions, finding that the claims of creationism are testable: "they have been tested, and they failed those tests." *Id.* Laudan argues that the "right way to combat creationism is by confuting the empirical claims it does make, not by pretending that it makes no such claims at all." *Id.* at 150-51.

> Secondly, as Vine Deloria notes, there is a need to examine:
> on what basis religious ideas are considered mere superstitions and on what basis religious ideas are said to be either valid or possible in the world in which we live. Indian dances for rain, for example, were said to be mere superstitions; songs to make corn grow were said to be even more absurd. Today people can make plants grow with music, and the information on the power of sound vibrations is coming into its own.

DELORIA, GOD IS RED, *supra* note 120, at 92. *See also* DELORIA, RED EARTH, WHITE LIES, *supra* note 210, at 58-60. Professor Deloria comments that there must be "a way that Indian traditions can contribute to the understanding of scientific beliefs at enough specific points so that the Indian traditions will be taken seriously as valid bodies of knowledge." *Id.* at 60.

268. *See generally* TRADITIONAL ECOLOGICAL KNOWLEDGE: A COLLECTION OF ESSAYS (Robert E. Johannes ed., 1989) [hereinafter TRADITIONAL ECOLOGICAL KNOWLEDGE]. Although the attitude of Western science has long been dismissive toward traditional indigenous knowledge, this is beginning to change as scientists realize that indigenous peoples have developed systems to understand and work with their environments that are often vastly more complex than those understood by Western scientists. A compelling example is indigenous knowledge of the healing properties of various plant species, which is currently being intensively studied by Western botanists. *See* Richard Evans Schultes, *Reasons for Ethnobotanical Conservation*, *in* TRADITIONAL ECOLOGICAL KNOWLEDGE, *supra*, at 31-37. In another example, the editor, notes that one group of indigenous peoples has such a detailed knowledge and taxonomy of the native vegetation that "native categories outnumber by more than 400 types, the taxonomic species into which the same local flora is grouped by systematic botanists." Robert E. Johannes, *Introduction* to TRADITIONAL ECOLOGICAL KNOWLEDGE, *supra*, at 5. Moreover, in establishing methods to use the natural environment, indigenous peoples have developed a "traditional technology," which involves "the knowledge and skills necessary to use the materials available in the environment to meet various human needs." Arthur Lyon Dahl, *Traditional Environmental Knowledge and Resource Management in New Caladonia*, *in* TRADITIONAL ECOLOGICAL KNOWLEDGE, *supra*, at 64.

269. Johnson, *supra* note 262, at 72.

American peoples throughout Canada and the United States.[270] The similarities among American Indian environmental perspectives may stem from the fact that virtually all traditional Indian cultures had "land-based" rather than "industrial" or "market" economies. Moreover, many indigenous groups throughout North America are culturally linked to some degree and have interacted with one another for centuries. And, unquestionably, all indigenous peoples within North America have experienced very similar treatment by Europeans and have had similar responses to contact and colonization. One common response among Native American peoples appears to have been to cling to traditional belief systems as a way to define themselves in opposition to the Euro-Americans who were attempting to assimilate native peoples to Western values.[271] Thus, in some cases, Native Americans identify themselves with the environment as a way to express their distinctive identity as "Indians."[272]

A central feature of many indigenous world views is found in the spiritual relationship that Native American peoples appear to have with the environment.[273] Indeed, as Vine Deloria has observed, a central task of tribal religions is to "determine the proper relationship that the people of the tribe must have with other living things and to develop the self-discipline within the tribal community so that man acts harmoniously with other creatures."[274]

It is important to realize that the traditional knowledge of American Indian people integrates the environment with the religious beliefs and world views of the people on several different levels.[275] Contrary to the

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270. *Id.*

271. For example, Professor Vecsey notes that while doing his research on indigenous religious beliefs toward the environment, he commonly heard Indians describe themselves as upholding the sacredness of the environment against white people intent on desecrating it. Vecsey, *Environmental Religions*, *supra* note 141, at 5-6.

272. *Id.* at 7.

273. *See, e.g.*, Kapashesit & Klippenstein, *supra* note 105, at 929.

274. DELORIA, GOD IS RED, *supra* note 120, at 88.

275. One problem of interpreting environmental ethics across cultures is a tendency to categorize beliefs according to one's own culture. Thus, "religion" and "world view" are western concepts that have defined meanings according to western understandings. Professor Vecsey speaks of "religion" as the "conception of, attitudes toward, and relations with the ultimate source of life." Vecsey, *Environmental Religions*, *supra* note 141, at 1. In other words, religion includes "world view (conceptions or doctrines), emotion (attitudes or piety) and actions (relations or praxis)." *Id.* This broad and inclusive conception of "religion" is more helpful to understanding indigenous belief systems than is the conception of religion as being a spiritual state of human reverence for the divine, as the more popular view suggests. *See also* A. Irving Hallowell, *Ojibwa Ontology, Behavior, and World View*, *in* TEACHINGS FROM THE AMERICAN EARTH: INDIAN RELIGION AND PHILOSOPHY 142 (Dennis Tedlock & Barbara Tedlock eds., 1975) (referring to Robert Redfield's concept of world view, which "attends especially to the way a man, in a particular society, sees himself in relation to all else.

oversimplified stereotype of American Indians as "nature-worshippers," there are in fact several types of integration between Native American spiritual beliefs and the environment.[276] As Professor Vecsey notes, "primary integration" results from the religious core being defined by environmental relations: for example, among the Hopi people ceremonial functions govern planting and harvesting.[277] "Secondary integration" is represented by traditional social and religious institutions being created by environmental interactions: organized priesthoods in farming societies; atomistic shamanism in hunting cultures.[278] Finally, "symbolic integration" is found with religious symbology being used in words, designs, and motions describing the surrounding environment.[279]

American Indian environmental attitudes clearly express a dialogical relationship between the people and the environment.[280] There is no question that American Indians have both positively and negatively influenced their environment for generations.[281] The transition from traditional economies into capitalism and the market system has had a major influence on patterns of acceptable environmental use. It is indigenous people's understanding of this *relationship* between themselves and their natural environment that this Article seeks to explicate through a discussion of indigenous environmental ethics.

Professor Ronald Trosper has drawn on several tribal traditions to construct a model of "traditional Indian worldviews" premised on four basic principles: "community," "connectedness," "the seventh generation," and "humility."[282] Professor Trosper discusses the economic,

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It is the properties of existence as distinguished from and related to the self. It is, in short, a man's idea of the universe.").

276. Vecsey, *Environmental Religions*, *supra* note 141, at 10-11.

277. *Id.* at 10.

278. *Id.* at 11.

279. *Id.*

280. *Id.* at 8.

281. *Id.*

282. Trosper, *supra* note 262, at 67. Trosper describes the principle of community as resting on the the following notion:

> [human beings are part of] a community that includes all beings: each has its proper role, and each has obligations to others. The sacred aspect of this assumption is that all beings have a spirit. The political aspect of this assumption is that human-to-human relationships are similar to human-to-animal and human-to-plant relationships. The economic aspect is that reciprocity in exchange must exist.

*Id.* at 67.

Trosper then compares the principle of community with that of connectnedness: "While the idea of community provides a source of obligation and a guide to proper behavior, the idea of connectnedness is a description of how the world is." *Id.* The principle of the "seventh generation" holds that "past human generations left us a legacy, and we have a duty to pass that legacy to our

social, political, and sacred aspects of these principles in tribal decision-making and finds that, cumulatively, they give rise to an ethic of "respect" that may constrain economic development in some ways.[283]

Trosper's model of "traditional Indian world views" corresponds to central features of indigenous environmental belief systems noted by other scholars. For example, in surveying various native groups in Canada, Randy Kapashesit and Murray Klippenstein find that indigenous environmental belief systems share a number of features revolving around a cyclical and comprehensive understanding of the environment.[284] Thus, under indigenous systems of environmental ethics, humans are part of nature and the secular is part of spiritual life: "Aboriginal environmental ethics reflect this sense of unity by emphasizing balance and sustainability."[285] As this Article demonstrates next, Trosper's model of traditional world views, as affirmed by other scholarship, has several important aspects: a perception of the earth as an animate being; a belief that humans are in a kinship system with other living things; a perception of the land as essential to the identity of the people; and a concept of reciprocity and balance that extends to relationships among humans, including future generations, and between humans and the natural world.[286]

### 1. Living in an Animate Universe

A central belief among many Native American cultures is that Earth is a living, conscious being that must be treated with respect and care.[287] The Koyukon of central Alaska believe that the environment is "both a natural and supernatural realm. All that exists in nature is imbued with awareness and power; . . . all actions towards nature are mediated by

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great-grandchildren and beyond, as far as to the seventh generation." *Id.* Finally, humility dictates that "[i]n taking action, humanity should be humble. The natural world is powerful and well able to cause trouble if not treated properly." *Id.*

283. *Id.* at 72.

284. *See* Kapashesit & Klippenstein, *supra* note 105, at 929.

285. *Id.* at 925. *See* LINDA CLARKSON ET AL., OUR RESPONSIBILITY TO THE SEVENTH GENERATION: INDIGENOUS PEOPLES AND SUSTAINABLE DEVELOPMENT 4-5 (1992) (discussing the relationship of spirituality and indigenous systems of "natural law"). This essential connection is further reflected in Professor Trosper's understanding of the principles of "community" and "connectedness." Trosper, *supra* note 262, at 68-69.

286. Because of the nature of indigenous world views, it is difficult to compartmentalize and categorize each aspect of the world view. My thematic organization is intended merely to illustrate the central tenants that underlie world views, although these tenents are fluid and overlap to a great extent.

287. *See* GRINDE & JOHANSEN, *supra* note 254, at 26-27; Johnson, *supra* note 262, at 74.

consideration of its consciousness and sensitivity."[288] Many Native American groups describe the earth as being a mother or grandmother, a source of life for the people.[289] Professor Vecsey notes the Nez Perce believe that "they came from the earth as a child comes from a mother."[290] One significant feature of this understanding of the relationship of the people to the earth is that the earth preceded the people, both in time and ultimate power.[291]

This conception of the earth as a living being extends to other features of the universe.[292] John Fire Lame Deer, a Lakota Sioux spiritual leader, describes the earth, rocks, wind, and water as "alive" and imbued with "power" in an animate universe.[293] It is difficult to understand this conception without having more of an insight into Lakota cosmology.[294] However, Lame Deer indicates that the reason that these objects are perceived as being animate is because they are parts of "Wakan Tanka"—the "Great Spirit."[295] Ethnographers have described the Lakota universe as containing a pantheon of gods or spirit powers who exercise control over the universe, but which are subsumed within the highest spirit power or Wakan Tanka.[296] Thus, Wakan Tanka controls four major animistic forces: Inyan, the Rock; Maka, the Earth; Skan, the Sky; and Wi, the Sun. Each of these forces, in turn, is associated with another layer of spirit powers, not all of which correspond to Euro-American concepts, but which include the natural features of thunder, wind, and the moon.[297] Importantly, for the Lakota, these spirit powers are "not at all

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288. Annie L. Booth & Harvey M. Jacobs, *Ties that Bind: Native American Beliefs as a Foundation for Environmental Consciousness*, 12 ENVTL. ETHICS 27, 33 (1990) (citing RICHARD K. NELSON, MAKE PRAYERS TO THE RAVEN 240 (1983)).

289. Vecsey, *Environmental Religions*, *supra* note 141, at 13.

290. *Id.* (citing Sue Whalen, *The Nez Perces' Relationship to Their Land*, 4 INDIAN HISTORIAN 3, 30 (1971)).

291. *Id.*

292. *Id.* at 21.

293. *See* JOHN FIRE LAME DEER & RICHARD ERDOES, LAME DEER, SEEKER OF VISIONS 12 (1972).

294. In this respect, I agree with N. Scott Momaday, who said:

> 'The earth is our mother. The sky is our father.' This concept of nature, which is at the center of the Native American world view, is familiar to us all. But it may well be that we do not understand entirely what the concept is in its ethical and philosophical implications.

N. Scott Momaday, *A First American Views His Land*, NATIONAL GEOGRAPHIC, July 1976, at 14.

295. The concept of "Wakan Tanka" is complex, although Christian missionaries quite early on satisfied themselves that it was the Lakota name for "God." ELIZABETH S. GROBSMITH, LAKOTA OF THE ROSEBUD: A CONTEMPORARY ETHNOGRAPHY 63 (1981).

296. *Id.* at 63-64.

297. *Id.* at 64.

remote to individuals, but are extremely accessible forces, similar to kinsmen, and are addressed as such."[298]

Although the Lakota universe appears to be hierarchical, it is also holistic,[299] taking into account the smallest object, such as a pebble, and also the people themselves with a unified conception of what is "alive" and has "power." Thus, in describing the small round pebbles that are put into a ceremonial gourd rattle, Lame Deer mentions that even those pebbles have a spirit, "Tunkan," given to them by Wakan Tanka.[300] The idea of a "spirit within a spirit" is symbolized by the circle, which is a relational principle[301] as well as a defining archetype of Lakota cosmology. As Lame Deer notes, the idea of an animate universe is difficult for non-Indians to understand:

> You can't explain it except by going back to the 'circles within circles' idea, the spirit splitting itself up into stones, trees, tiny insects even, making them all wakan by his ever-presence. And in turn all these myriad of things which make up the universe flowing back to their source, united in the one Grandfather Spirit.[302]

Significantly, the place of the Lakota people within this universe is essentially comparable to that of the pebble: both are part of the "sacred hoop." As Lame Deer says:

> The tipi was a ring in which people sat in a circle, part of the larger hoop which was the seven campfires of the Sioux representing one nation. The nation was only a part of the universe, in itself circular and made of the earth, which is round, of the sun, which is round, of the stars, which are round. The moon, the horizon, the rainbow—circles within circles, with no beginning and no end.[303]

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298. *Id.*

299. Professor Trosper associates the concept of a "holistic worldview" with his principle of "connectnedness." Trosper, *supra* note 262, at 69.

300. LAME DEER & ERDOES, *supra* note 293, at 114-15.

301. By "relational," I mean to indicate that the circle or "sacred hoop" is considered by the Lakota to symbolize the "relationship among all living things." *See* GROBSMITH, *supra* note 295, at 64.

302. LAME DEER & ERDOES, *supra* note 293, at 114.

303. *Id.* at 112.

Professor Callicott notes that the world view of the Lakota and other indigenous peoples[304] perceives the "human and natural realms as unified and akin," whereas the European world view is premised on an antagonistic dualism in which the body and spirit are "pitted against one another in a moral struggle."[305] Gerald Clifford, an Oglala Lakota who has studied both Catholic theology and traditional Lakota religion, compares the two origin stories and the ways of thinking they have produced:

> In the Judeo-Christian origin story . . . God ousted man from the garden and said that the earth would produce thorns and thistles and man was going to have to work by the sweat of his brow to survive and he would have to dominate the earth, to subdue it. But the Lakota origin story says that the earth is the mother who nourishes everything. It teaches respect for all living things, all related to one another. That's an important difference.[306]

Thus, the animate universe that predominates among indigenous world views gives rise to a relational, rather than hierarchical, land ethic. This relational ethic situates the human being in a kinship role with respect to other aspects of the natural universe.

### 2. Human Kinship with the Natural World

In a way of thinking that sees man and nature as part of one ordered, balanced, and living whole, humans have social and kinship relationships with other beings.[307] For example, for the Ojibwa people the linguistic category of "human being" is not coextensive with the category of "person."[308] Rather, in the Ojibwa universe "[a]nimals, plants, stones, thunder, water, hills" and other aspects of the natural world may all be

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304. The notion that human beings are in a kinship relationship with other beings recurs continually among Native American peoples. *See* Booth & Jacobs, *supra* note 288, at 35; Kapashesit & Klippenstein, *supra* note 105, at 930.

305. CALLICOTT, *supra* note 112, at 186.

306. William Greider, *The Heart of Everything That Is*, ROLLING STONE, May 7, 1987, at 37, 62.

307. Booth & Jacobs, *supra* note 288, at 35-36 (citing Paula Gunn Allen, *The Sacred Hoop: A Contemporary Indian Perspective on American Literature*, *in* GEARY HOBSON, THE REMEMBERED EARTH 225 (1979)).

308. Callicott, *supra* note 244, at 265.

"persons."[309] Furthermore, the Ojibwa word for "grandfather" is used to refer to one's human relations, in the standard sociological sense, and alternatively to certain "spiritual beings who are persons of a category other than human."[310] As Professor Hallowell explains, if one understands the Ojibwa world view, which perceives both types of grandfathers as functionally equivalent, there is no dichotomy to worry about.[311]

Under many Indian traditional beliefs, specific animals are considered "persons" who have special relationships with the Nation's people.[312] Vine Deloria offers the example of the snake, which the Hopi people incorporate into their religious traditions because the Snake People long ago taught the Hopis the secret of bringing rain for their crops.[313] Similarly, the Plains Indians speak of the buffalo as a distinct people and the Northwest Coast Indians consider salmon to be a people.[314] In these indigenous cultures, these animals are given a central role in religious ritual and have become a primary focus of tribal environmental policies designed to preserve and rehabilitate these species.[315]

Given the "animate" universe of many indigenous groups incorporated into tribal religious traditions, early anthropologists commonly thought that native people worshiped animals, stones, and water as deities. Worship in that sense seemed inconsistent with behavior as hunters and gatherers or farmers, just as for many Euro-Americans the idea that animals are people would be inconsistent with a willingness to eat them for dinner. Professor Callicott points out, however, that although the Ojibwa consider themselves to be in a complex social relationship with other "persons", they maintain those relationships through norms of respect and exchange, not through "worship" in the sense that Christians worship God or through

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309. *Id.*; *see also* Hallowell, *supra* note 275, at 147 (explaining that "[s]ince in the Ojibwa universe there are many kinds of reified person-objects which are other than human but have the same ontological status, these, of course, fall into the same ethnoseme as human beings and into the animate linguistic class").

310. Hallowell, *supra* note 275, at 144.

311. *Id.*

312. Vecsey, *Prologue*, *supra* note 249, at 21.

313. DELORIA, GOD IS RED, *supra* note 120, at 89.

314. *Id.* at 90.

315. *See, e.g.*, Brad Knickerbocker, *Reclaiming the Ancient Lands of the Old Ones: Oregon Tribes Vie For Shared Management of National Forest*, CHRISTIAN SCIENCE MONITOR, June 14, 1994, at 10 (commenting on the ceremonial traditions of Oregon Indian people regarding salmon and the proposed Memorandum of Understanding between the United States Forest Service and the tribes that would permit them to exercise certain land management responsibilities over a portion of the Rogue River National Forest); Charles Trueheart & Dennis McAuliffe, Jr., *Indians Demand Power, Economic Benefits as Free Markets Sweep Hemisphere*, WASH. POST, Sept. 11, 1995, at A1 (discussing Nisga'a Tribe of British Columbia, which has implemented a salmon enhancement project to protect and restore salmon runs on the Nass River).

treatment as a human being.[316] Thus, a hunter is required to observe a complex litany of behaviors designed to implement an ethic of respect.[317] For example, many tribes require a hunter to offer the animals tobacco in exchange for the animal giving up flesh to the hunter. Animals were considered by the Ojibwa to be like persons in that they had spirits and powers that could be used to assist or harm humans. This understanding implied an ethical duty on the part of humans to minimize the suffering of animals and treat them with respect.[318]

The indigenous understanding of the relationships between man and the natural environment is radically different from the Western understanding of such relationships.[319] Euro-American values stemming from Christianity, capitalism, and technology promote a view of nature as a commodity, "as wilderness to be tamed," and as a "nonliving collection of natural resources to be exploited."[320] Although European traditions may speak of the need to maintain balance in nature, these traditions do not suggest that humans are in a kinship relation with animals, or that humans owe a duty to animals. A duty would imply some right on the part of animals, an idea which has never achieved widespread support from ethicists[321] or from the public at large.[322]

In comparison, Kapashesit and Klippenstein find that indigenous people "base their relationship with the environment on concepts of respect and duty rather than rights and claims."[323] Here, Kapashesit and

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316. *See* CALLICOTT, *supra* note 112, at 189-90.

317. *See* Vecsey, *Prologue*, *supra* note 249, at 21. Professor Vecsey observes that:

> Indians have regarded the beings of nature as worthy of respect and ethical consideration. Indians have placed limits on their human freedom out of consideration for the welfare of nonhuman persons. Their religions are replete with questions regarding the proper relationship with the environment, questions concerning, e.g., the human justification for killing animals—who are humans' kin but who are necessary as food to support human life. Indians have apologized to their killed animals and treated their bones with ritual respect; they have thanked animals, plants, the earth itself, for being sources of human life.

*Id.*

318. Vecsey, *Environmental Religions*, *supra* note 141, at 20.

319. Vecsey, *Prologue*, *supra* note 249, at 21.

320. *Id.*

321. For an instructive discussion of the notions of rights, duties and responsibilities to non-human aspects of the natural world, *see* ROLSTON, *supra* note 262, at 45-93. Professor Rolston notes that "[i]t is sometimes convenient rhetorically but in principle unnecessary to use the concept of rights at all." *Id.* at 51.

322. For example, opponents of the ESA weigh the "rights" of loggers to a livelihood against the "preferences" of environmentalists for spotted owls and come down squarely on the side of the loggers. The spotted owl doesn't figure in as a "rights holder."

323. Kapashesit & Klippenstein, *supra* note 105, at 925.

Klippenstein seem to echo Carol Gilligan's impressions of a different morality.[324] For Indian people, "[r]espect and duty are flexible principles that situate the 'right' in a context of a relationship or many relationships and cannot be abstracted from the nature of those relationships."[325]

According to many indigenous belief systems, reciprocity and balance are required from both sides in the relationships between humans and other living things.[326] Traditionally, human beings were required to make offerings in fair exchange for that which they took from the natural world. "[T]he permanent loss of something, such as in the destruction of a species, irreparably tore at the balance of the world."[327] There was a strong feeling that "humans both give and receive value and self-worth from the natural world."[328] Should a human breach this obligation of reciprocity, he or she would likely suffer bad consequences. Thus, among Native American peoples, rituals for an ill person are commonly designed to restore the ill person to the appropriate frame of mind and proper relationship with respect to the rest of the world.[329] Indeed, under many indigenous world views, nature is seen as an essential part of the spiritual and physical development of the people.

### 3. Land, Place, and Human Identity

Vine Deloria has noted that a central difference between indigenous and Western belief systems is in the use of history to document the spiritual development of the people. According to Professor Deloria, Christianity gives history a "center" with the birth of Christ and temporally places the history of human beings and the natural world on either side of that "center."[330] Christian religion is thus "divorced from space and made an exclusive agent of time."[331] American Indian tribal religions, on the other hand, are located "spatially," often around the natural features of a sacred universe.[332] Thus, while indigenous people often do not care *when* the particular event of significance in their

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324. *See supra* note 109 and accompanying text.

325. Kapashesit & Klippenstein, *supra* note 105, at 931.

326. Booth & Jacobs, *supra* note 288, at 38; Kapashesit & Klippenstein, *supra* note 105, at 930.

327. Booth & Jacobs, *supra* note 288, at 38.

328. *Id.* at 38-39.

329. *See id.*; Vecsey, *Environmental Religions*, *supra* note 141, at 21.

330. DELORIA, GOD IS RED, *supra* note 120, at 121.

331. *See id.*

332. *Id.* at 122.

religious tradition occurred, they care very much about *where* it occurred.[333]

Under the Native American perception of reality, which is "bound up in spatial references," specific natural areas are imbued with complex significance.[334] Thus, a tribe may speak of its "origin place"—such as a river, mountain, plateau, or valley—as a central and defining feature of the tribal religion.[335] The tribe may also depend on a number of "sacred" places for practice of religious activities.[336] These spatial references orient the people and place them within the land; they give a sense of history, rootedness, and belonging.[337]

For example, the Tewa of New Mexico see their world as "bounded by four sacred mountains, the same mountains which were seen by the first four pairs of sibling deities as they were sent out to explore the world in the origin myth."[338] The Tewa have named and located each of these mountains within their cosmology, and each mountain is understood to be "endowed with sacredness in several ways."[339] The Tewa belief, therefore, associates each mountain with certain bodies of water, spirit entities, shrines, directions, and directional colors, all of which contribute to an overall understanding of the Tewa universe and their place within that universe.[340]

The Navajo people also perceive their world to be bounded by four sacred mountains,[341] although the social and religious connections manifest

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333. *Id.*

334. Booth & Jacobs, *supra* note 288, at 33; DELORIA, GOD IS RED, *supra* note 120, at 122.

335. DELORIA, GOD IS RED, *supra* note 120, at 122.

336. *Id.*

337. Of course, due to the tremendous loss of lands that Indian nations have suffered, such sacred places are often located off-reservation. Some Indian nations are currently attempting to protect their ancestral spiritual ties to certain lands through the National Historic Preservation Act. *See, e.g.*, Pueblo of Sandia v. United States, 50 F.3d 856, 857 (10th Cir. 1995) (holding that the National Forest Service did not make a good faith effort under the NHPA to identify traditional historic properties of the Sandia Pueblo in Las Huertas Canyon).

338. ORTIZ, *supra* note 250, at 19.

339. *Id.*

340. *See id.* at 19-20. This oversimplified account cannot do justice to the complex world view of the Tewa. Professor Ortiz does an admirable job of describing the world view of the Tewa and how this relates to their social and religious structure. The Tewa world view is a compelling example of how "social dualism" and "symbolic dualism" are actually a means of tying "human categories together into a larger structure." Fred Eggan, *Foreword* to ORTIZ, *supra* note 250, at xii.

341. BECK & WALTERS, *supra* note 262, at 82. The four sacred mountains that bound the Navajo universe are Blanca Peak in New Mexico (Sis naajin'i), which sets the eastern boundary, Mount Taylor in New Mexico (Tsoodzil), which sets the southern boundary, the San Francisco Peaks in Arizona (Dook'o'oosliid), which set the western boundary, and the La Plata Mountains in Colorado, which set the northern boundary. *Id.*; *see* DELORIA, GOD IS RED, *supra* note 120, at 122.

themselves differently in Navajo cosmology.[342] Different prayers and chants are associated with each of the sacred mountains, as well as the sky, the earth, the day, and the night.[343] By honoring the sacred elements of the Navajo universe and caring for them with the appropriate ceremonies, the people believe that they preserve the balance of the natural world and ensure a good life for themselves.[344]

For the Lakota and Dakota Sioux, the Black Hills of South Dakota are the center of the "sacred hoop." The Lakota believe that the Black Hills are the "heart" of their nation and the birthplace of their people.[345] As Charlotte Black Elk recalls, the Lakota creation story tells of the emergence of the Lakota people from caves within the Black Hills, which the Lakota call "Wamaka Og'naka Icante"— "the heart of everything that is."[346]

Given these extensive interrelationships between the people and certain areas of land, Indian people often see themselves as "belonging" to the land or being a part of the land.[347] Paula Gunn Allen, a Laguna writer, notes:

> We are the land. To the best of my understanding, that is the fundamental idea embedded in Native American life and culture in the Southwest. More than remembered, the Earth is the mind of the people as we are the mind of the earth. . . . It is not a means of survival. . . . It is rather part of our being, dynamic, significant, real.[348]

The traditional languages often articulate this connection between the land and the people. For example, the term "Anishinabeg Akiing" among the Ojibwa and Cree, and the term "Dineh Bii Kaya" among the Navajo, both signify "the People's land."[349] Among the Cherokee, the word "Eloheh"

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342. BECK & WALTERS, *supra* note 262, at 81-82.

343. *Id.* at 82 (citing AILEEN O'BRYAN, THE DÍNÉ: ORIGIN MYTHS OF THE NAVAJO INDIANS (1956)).

344. *Id.*

345. *See* Greider, *supra* note 306, at 38.

346. *Id.* at 60, 62 (interestingly, from an aerial view, the Black Hills are indeed heart-shaped).

347. Booth & Jacobs, *supra* note 288, at 34. As Frank Pommersheim notes, "[l]and is inherent to Indian people; they often cannot conceive of life without it. They are part of it and it is part of them; it is their Mother." Frank Pommersheim, *The Reservation as Place*, 34 SAN DIEGO L. REV. 24, 250 (1989).

348. Booth & Jacobs, *supra* note 288, at 34 (citing Paula Gunn Allen, *Iyani: It Goes This Way*, *in* THE REMEMBERED EARTH, *supra* note 307, at 191).

349. LaDuke, *supra* note 261, at 146.

means both "land" and the People's collective "history, culture, religion."[350]

As Frank Pommersheim points out, land is important to Indian people in a multitude of ways—beyond being a means of subsistence, land "is the source of spiritual origins and sustaining myth which in turn provides a landscape of cultural and emotional meaning. The land often determines the values of the human landscape."[351] Thus, in the harsh environment of the North American prairie, an emphasis was placed on values of giving and sharing, on reciprocity and responsibility, and on the central value of the community as opposed to the Western fixation on the value of the individual.[352]

Even in the more abundant environments of the Pacific Northwest, tribal communities placed paramount value on giving, sharing, reciprocity, and responsibility. For example, the Potlatch ceremony of the Tlingit and Kwakiutl tribes, which encompassed a massive distribution of personal property, was a means of both redistributing wealth among the less fortunate and of enhancing the personal reputation of the giver.[353] Thus, the ethics of reciprocity and balance consequently transcend social obligations to guide human interaction with the natural world.

### 4. Reciprocity and Balance as Guiding Ethics

The interrelationship of people and land, combined with the deeply rooted ethics of reciprocity and balance, lead to a long-term view of ecological stability or, in contemporary terms, a concern with "sustainability."[354] Traditionally, the relationships between indigenous peoples and their traditional lands were largely seen as permanent and stable. This perception has only intensified with the diminishment of the

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350. Edwin Pister, *Endangered Species: Costs and Benefits*, 1 ENVTL. ETHICS 341, 347 (1979) (quoting Jimmie Durham, Cherokee).

351. Pommersheim, *supra* note 347, at 250.

352. *Id.*

353. *See* DUANE CHAMPAGNE, AMERICAN INDIAN SOCIETIES: STRATEGIES AND CONDITIONS OF POLITICAL AND CULTURAL SURVIVAL 110 (1989). The potlatch institution involves the accumulation and distribution of wealth in public displays, which has prompted several non-Indian scholars to analogize it to "the acquisitive emphasis in Western societies." *Id.* As Professor Champagne notes, however, most often "the primary purpose of the potlatch was not economic reinvestment . . . but to enhance social status, honor ancestors, or seal marriage agreements." *Id.* Moreover, the potlatch, as with other institutions, has an essential connection to tribal religions, and to the clan moieties—such as those of the Eagle, Bear, Raven and Wolf—whose origins stem to the peoples' understanding of their creation and cosmology. *Id.* at 110-15.

354. Kapashesit & Klippenstein, *supra* note 105, at 930; CLARKSON ET AL., *supra* note 285, at 10-11.

land base through the reservation system.[355] As David Lester of the Council of Energy Resource Tribes notes, Indian people today "live in small communities, confined in many cases to a diminished land base. We have a total commitment to staying on that land for generations to come."[356]

That sense of permanence is integrally related to the notion of sustainability. "In the 1980s, the concept of *sustainable development* emerged as the means by which biodiversity and natural ecosystems would be saved while enabling humanity to continue to prosper."[357] In 1987, the United Nations' World Commission on Environment and Development issued a document entitled "Our Common Future" that has come to be known as the Brundtland Commission Report.[358] The Report has been adopted by many governments and global institutions as a guide to environmentally sound development.[359]

The Bruntland Commission Report defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[360] The concept encompasses several normative principles, including the idea that human beings are entitled to a "healthy and productive life in harmony with nature" and that development must "equitably meet the developmental and environmental needs of present and future generations."[361] Thus, the concept of sustainable development encourages a rate of consumption that will ensure a constant supply of resources.[362]

For Indian peoples, who traditionally interpreted their relationship with the land and with future generations as holistic, cyclical, and

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355. Due to the relocation of many Indian nations, some reservations do not represent the "traditional" land base of the tribe, but are nevertheless regarded as permanent homes and the source of a land-based sovereignty by contemporary tribal members. *See generally* F. COHEN, HANDBOOK OF FEDERAL INDIAN LAW 74-92 (1982 ed.) (detailing the history of westward expansion and Indian removal).

356. Lester, *supra* note 25, at 28. As Lester notes, relocation is not an option for Indian people. *Id.* Thus, Indian people cannot afford a catastrophe such as Love Canal, where the only means of protecting the population from hazardous conditions is removal.

357. MEFFE & CARROLL, *supra* note 171, at 491 (emphasis in original).

358. *Id.*

359. *Id.*

360. Molly Harriss Olson, *Accepting the Sustainable Development Challenge*, 31 WILLAMETTE L. REV. 253 (1995) (citing UNITED NATIONS WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, OUR COMMON FUTURE 8 (1987)).

361. Mary Pat Williams Silveira, *International Legal Instruments and Sustainable Development: Principles, Requirements and Restructuring*, 31 WILLAMETTE L. REV. 239, 243-244 (1995) (quoting from the Rio Declaration at princ. 1 and princ. 3).

362. Averil Rothrock, *Oregon's Goal Five: Is Ecologically Sustainable Development Reflected?*, 31 WILLAMETTE L. REV. 449, 451 (1995).

permanent, sustainability was the natural result, if not the conscious goal, of deeply rooted environmental ethics and traditional land-based economies. Many contemporary indigenous peoples thus advocate a Native concept of sustainability that "means ensuring the survival of the people, the land and the resources for seven generations."[363] Although the indigenous understanding of sustainability is promoted by traditional land-based economies, the incorporation of Indian nations into the larger industrial and market economy of the United States, with its attendant value systems, has facilitated pressures to engage in commercial resource extraction and other non-traditional economic development. This has often precipitated intratribal disputes over land use and resource development[364] and has raised the question of whether non-traditional economic development will undermine the indigenous commitment to sustainability.[365] Whether a tribe chooses to engage in traditional or non-traditional economic development, indigenous ethics continue to play an important role in guiding tribal environmental policy.

## V. THE ROLE OF INDIGENOUS ETHICS IN GUIDING TRIBAL ENVIRONMENTAL POLICY

The influence of traditional ethics and environmental knowledge on contemporary tribal policy cannot be underestimated. Indeed, there are many examples of successful implementation of traditional ethics in contemporary tribal environmental management.[366] However, there are also many examples of tribal policy built on what appear to be Anglo-American norms, particularly in the case of industries such as mining and waste disposal, which also serve non-Indian interests.[367] Moreover, there are traditional tribal practices that represent, in the words of Ronald Trosper, "counter-examples" to the predominant ethics of reciprocity and respect.[368] Trosper speaks of overgrazing on the Navajo reservation as such a "counter-example."[369] The logical question is what went "wrong" with Indian nations who adopt Anglo-American norms or who practice

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363. CLARKSON ET AL., *supra* note 285, at 65.

364. *See supra* note 157 and accompanying text.

365. For example, some indigenous people advocate a policy against allowing waste companies to site disposal facilities in indigenous communities in order to protect the integrity of traditional environmental ethics and commitments to sustainability. *See* CLARKSON ET AL., *supra* note 285, at 70.

366. *See infra* notes 385, 431-33, 450, and accompanying text.

367. *See infra* notes 437-38, 462, and accompanying text.

368. Trosper, *supra* note 262, at 87.

369. *Id.* at 87-88.

traditional norms (assuming that these are in fact traditional norms) that are counter to the predominant norms? Yet even this question suggests that there is some standard by which to measure how "acceptable" indigenous norms are and to delegitimize those norms that vary from the standard. To analyze this difficult issue, I will discuss each of the three categories of tribal environmental policy and their implications for modern concerns over economic development.

### *A. Incorporation of Traditional Values into Environmental Policy*

Winona LaDuke asserts that traditional knowledge represents "the clearest empirically based system for resource management and ecosystem protection in North America" and, in fact, is more effective for environmental planning than the dominant society's scientific method.[370] Indeed, although traditional indigenous knowledge has often been dismissed as "intuitive,"[371] there are clear parallels to the "scientific" method.[372] Moreover, traditional knowledge is effective in the procedural sense: many traditional tribal systems emphasized that all relevant parties must be represented in decision-making—even "animals and the unborn."[373]

LaDuke points to the environmental ethic of the Ojibwa and Cree peoples of the Northern United States and Canada as an example of the type of "indigenous thinking" that can guide resource management and ecosystem protection. They base their environmental ethic on the concept

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370. LaDuke, *supra* note 261, at 127.

371. *See* CALLICOTT, *supra* note 112, at 193-94 (citing work by Steward Udall asserting that American Indians were the "First Ecologists," but disclaiming that Indians were real "scientists"; rather, as Callicott notes, "one might prefer to say that American Indians intuitively acquired an essentially ecological outlook, perspective, or habit of mind"). Such impressions continue. I recently had a conversation with one non-Indian tribal attorney who asserted that, in his experience, the claims of tribal members (generally elders) about the dangers of some uses of natural resources (e.g. water, minerals) were based on "intuition" and compared this with the "scientific" knowledge of non-Indian corporations leasing tribal resources, which he found more reliable. For an excellent critique of the belief that Western science is superior to indigenous peoples' traditional knowledge, *see generally* DELORIA, RED EARTH, WHITE LIES, *supra* note 210.

372. For example, one scholar cautions against the tendency of European and American researchers to dismiss what turn out to be "false" interpretations of natural phenomena, because the researcher could miss the value of the underlying empirical knowledge. *See* Johannes, *supra* note 268, at 7 (giving as an example the accurate observations of marine life made by Pacific Island fishermen, some of which were not interpreted correctly, but nonetheless held value as empirical data).

373. Professor Barsh compares this inclusive traditional model with European parliamentary systems which "*exclude* all relevant parties *except* adult living citizens, and condition *effective* participation on having the leisure, literacy, and financial resources to make politics a profession." Barsh, *Indigenous Self-Determination*, *supra* note 15, at 299 (emphasis in original).

of "Minobimaatisiiwin," or the "good life," which encompasses the ideas of cyclical thinking and reciprocal relations and responsibilities to the natural world: "[i]mplicit in the concept of Minobimaatisiiwin is a continous inhabitation of place, an intimate understanding of the relationship between humans and the ecosystem, and the need to maintain that balance."[374] The Ojibwa believe that the goal of Minobimaatisiiwin "cannot be achieved without the effective help and cooperation of *both* human and other-than-human persons, as well as by one's own personal efforts."[375] These values and tenets enabled the Ojibwa people to "maintain economic, political, religious, and other institutions for generations in a manner that would today be characterized as sustainable."[376]

Clearly, aboriginal environmental ethics based on traditional knowledge still survive and are implemented by indigenous communities in regulating traditional activities such as hunting, trapping, and fishing.[377] However, the practice of such ethics takes place at the "social or group level, and requires social cohesion to operate."[378] Traditional management systems are rarely codified in written form. Rather, they generally incorporate various unwritten rules and social norms and are perpetuated through social institutions.[379] Moreover, enforcement of these norms also depends on the actor being embedded in a social context. For example, many taboos regulate conduct between a hunter and the natural environment; breach of a taboo is thought to result in bad luck, illness, or even death to the hunter.[380] Other means of enforcement could include ostracism or shame.[381] Similarly, positive social practices and incentives promote adherence to community norms.[382] In this Article, I refer to the enforcement of social norms by tribal adjudicators as "tribal common

374. LaDuke, *supra* note 261, at 128.

375. Hallowell, *supra* note 275, at 171 (emphasis in original).

376. LaDuke, *supra* note 261, at 128-29.

377. Kapashesit & Klippenstein, *supra* note 105, at 927.

378. *Id.*

379. *Id.* at 932. An example of such a social institution is the "hunting boss" among the Cree. The Cree recognize a particular leader as having control over hunting activities within an area. The "hunting boss" does not "own" the territory, but he has authority to regulate behavior within this territory. He also has the responsibility for knowing what type of condition the natural resources are in (for example, the size and location of the animal population), which he uses to make decisions regarding land use. *Id.* at 934.

380. *Id.* at 933.

381. *Id.* at 957 (citing material on traditional Gitksan and Wet'suwet'en fishing regulations).

382. *Id.*

law."[383] Importantly, some indigenous groups have codified traditional environmental norms and practices, as did the Gitksan and Wet'suwet'en peoples in British Columbia with their traditional fishery management practices.[384] However, in many tribes these traditional norms have not yet been codified, though they continue to informally regulate the behavior of tribal members in many circumstances.[385] Whether formally or informally incorporated, the implementation of indigenous environmental norms through tribal common law raises several important issues, including whether indigenous environmental norms can be enforced against non-members and whether their effectiveness depends on membership within the group and participation in social institutions.[386]

At an even more fundamental level, we might ask whether the effectiveness of indigenous environmental norms depends on the continuation of traditional social and economic institutions. Property, for example, is an important social institution, one intimately connected to environmental management and economic practices. Although indigenous people are commonly thought not to have had property systems prior to European contact, this is clearly not the case.[387] American Indian property systems often differed from the Euro-American private property model, however, because of the group social organization of many traditional

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383. *See* Robert D. Cooter & Wolfgang Fikentscher, *Is There Indian Common Law? The Role of Custom in American Indian Tribal Courts*, 8 (1994) (unpublished manuscript, on file with author). Tribal common law systems share some features of the English common law tradition. For example, territorial occupancy under "relatively stable systems of political authority, land tenure, and resource harvesting"—in other words, a "lex loci." *See* Peter Usher, *Property as the Basis of Inuit Hunting Rights*, *in* PROPERTY RIGHTS AND INDIAN ECONOMIES 41, 49 (Terry Anderson ed., 1992).

384. Kapashesit & Klippenstein, *supra* note 105, at 957.

385. *See* Usher, *supra* note 383, at 50; Cooter & Fikentscher, *supra* note 383, at 52 (recounting several instances where construction on the reservation was halted or delayed pending resolution of an environmental issue under traditional belief systems and noting that the White Mountain Apaches constructed their ski resort on the second highest mountain on the reservation because the highest mountain had spiritual significance that would have been impaired by the ski resort).

386. As Professors Cooter and Fikentscher note, there is a lack of scholarship on the issue of whether "tribes draw upon their moral and legal heritage to make distinctively Indian laws" or whether they draw on state and federal law in making tribal laws. Cooter & Fikentscher, *supra* note 383, at 6. For purposes of this Article, I have used examples of incorporation of traditional environmental norms in tribal policy-making to give an overview of the issues raised, although I have not done the in-depth study of specific tribal law systems to see how traditional environmental norms have become formally incorporated into tribal law. My treatment of these issues is intended merely to suggest certain areas for further scholarly development.

387. For example, reformers in the late 1880s "believed that traditional Indian societies did not recognize individual rights to land; instead, land was held in the form of what economists today call a commons." Leonard A. Carlson, *Learning to Farm: Indian Land Tenure and Farming Before the Dawes Act*, *in* PROPERTY RIGHTS AND INDIAN ECONOMIES, *supra* note 383, at 67.

Indian communities. Nonetheless, American Indian property systems often share central features of the "bundle of rights" espoused by Anglo-American property law. For example, among the Inuit, aboriginal land tenure includes three essential elements of the Anglo-American "bundle of rights": the right to use the land; the right to permit others to use the land; and the means of social control to ensure that individuals used the land in harmony with one another and not in a way that would endanger the security of the group.[388]

Traditional Inuit property and land tenure systems are reflected in their social organization, ideology, and values.[389] For the Inuit, property rights arise through use and occupancy. The group's connection to the land "lay in knowledge, naming, travel, foraging, and residence."[390] Those who could not demonstrate the appropriate knowledge of an area could not have rights to it.[391] Although the land and its resources were the communal property of the group and no individual could claim exclusive access,[392] specific individuals, bands, and family groups could hold usufruct rights in certain areas of land based on long-standing use and occupancy.[393] Even though the land could not be alienated from the group, the Inuit had customs which allowed outsiders temporary use of the land for sustenance or which incorporated the outsider into the community in a way that would allow for a more permanent use.[394]

To the extent that the Inuit people articulated their relationship to the land, they saw themselves "as belonging to it rather than it to them."[395] As Peter Usher observes, "[t]he land was home and sustenance but could not be reduced to individual possession and could not be alienated. Land was not a commodity or a factor of production. Nor were animals property; they existed in a relationship with humans."[396] Inuit land tenure and concepts of property were thus closely related to the conservation of natural resources.[397] The various bands of Inuit had enforceable customs and rules which regulated "the manner in which individuals hunted, trapped, and fished."[398] These systems of customary law, while unwritten,

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388. Usher, *supra* note 383, at 49.
389. *Id.* at 46.
390. *Id.* at 47.
391. *Id.* at 46.
392. *Id.* at 47.
393. *Id.* at 48.
394. *Id.* at 47.
395. *Id.*
396. *Id.*
397. *Id.* at 50.
398. *Id.*

were nonetheless common knowledge among members of the group and were incorporated into longstanding religious and spiritual beliefs and practices.[399]

For the Inuit, then, the ethics of responsibility and respect were paramount and worked in connection with property rights institutions. Property was owned by all group members and gave rise to a series of complex responsibilities and duties, both to each other and to the natural world. Indeed, as Kapashesit and Klippenstein note, a crucial feature of many indigenous environmental management systems is their group nature.[400] Through deeply embedded social norms regarding the use of the land and its resources, the group regulates economic behavior throughout the territory, thereby preventing the "tragedy of the commons" outcome widely cited by Euro-Americans as being an unfortunate by-product of communally held resources.[401]

According to Garrett Hardin's theory of the "tragedy of the commons," over-exploitation of resources occurs when profit maximization and self-interest of individuals within the group overcome the individuals' abilities to regulate their own uses of collectively-held resources.[402] Economists argue that privatizing the collectively-held resource will force each user to consider the full costs of his actions because he will then bear those costs, rather than being able to externalize them on others.[403] This strand of economic theory tends to promote individual ownership as facilitating the most efficient use of resources. However, as Ronald Coase theorized in relation to the firm, other units of organization may also be used to develop efficient structures.[404] Professor Jennifer Roback has drawn on Coase's work to develop an illuminating analysis of tribal property institutions.[405] Professor Roback finds that many Indian nations had systems of private property, though the locus of ownership may have been in a group rather than in an individual.[406]

Professor Roback's finding is consistent with Peter Usher's description of Inuit property rights. As Usher notes, it is necessary to distinguish the so-called "common property" or "open access"

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399. *Id.*

400. Kapashesit & Klippenstein, *supra* note 105, at 934.

401. *Id.* (discussing Garrett Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243 (1986)).

402. *Id.*

403. *See, e.g.*, Demsetz, *supra* note 255, at 347.

404. *See* Jennifer Roback, *Exchange, Sovereignty, and Indian-Anglo Relations*, *in* PROPERTY RIGHTS AND INDIAN ECONOMIES, *supra* note 383, at 9-10 (citing Ronald Coase, *The Nature of the Firm*, 4 ECONOMICA 386 (1937)).

405. *See id.* at 5-26.

406. *See id.*

arrangements that Garrett Hardin talks about from indigenous systems of "communal" property regulated by the group's social institutions. Open access systems are marked by rapid economic change, unstable social institutions and the absence of local community control; communal property systems, on the other hand, are characterized by relatively stable economies and social institutions, and widely-accepted internal constraints on individual activity to protect the resource for others and to preserve a balance with the natural world.[407]

Indian nations, however, face several challenges to the continuation of traditional social and economic institutions. In many cases, for example, traditional indigenous institutions must be reconciled with those organized by tribes under centralized governmental structures, based largely on norms and values imposed by federal legislation.[408] Federal policy has, in some cases, incapacitated traditional indigenous property rights systems and has undermined preexisting social norms. The reservation system severely impacted traditional land tenure systems by circumscribing the traditional land base, by removing tribes from their traditional lands, and by forcing Indian people to engage in non-traditional economic practices.[409] Moreover, the allotment policy of the late nineteenth and early twentieth centuries, which was driven by the perception that Indian people did not possess property rights,[410] privatized reservation lands among individuals and displaced existing property rights structures that were often focused on kinship groups and had distinct usufruct rights attached.[411] The allotment policy's failure has been attributed to the fact that it replaced earlier property institutions with a system that was fundamentally divergent from traditional norms.[412] For example, the allotment policy foisted the ideal of the yeoman farmer on all tribes, even those without a former history of agriculturalism or individual property rights.[413]

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407. Usher, *supra* note 383, at 51.

408. *See* Bruce L. Benson, *Customary Indian Law: Two Case Studies*, *in* PROPERTY RIGHTS AND INDIAN ECONOMIES, *supra* note 383, at 27 (noting that the centralized legal systems of modern Indian reservations often differ dramatically from the legal systems that prevailed before European contact).

409. *See, e.g.*, Carlson, *supra* note 387, at 73 (noting that tribes in many cases needed to find land tenure systems suitable to the new environment).

410. For example, Senator Dawes, who sponsored the Allotment Act, declared that until Indian people "will consent to give up their lands, and divide them among their citizens so that each can own the land he cultivates, they will not make much progress." *Id.* at 67 (citation omitted).

411. *See* Roback, *supra* note 404, at 23.

412. *Id.*

413. *See* Carlson, *supra* note 387, at 74, 80 (noting that many tribes without a former history of farming maintained a strong cultural resistance to the idea of allotment and agriculture).

The continuation of indigenous environmental management systems, therefore, may depend on a coherent understanding and acceptance of the group's traditional norms and values, rather than norms inculcated by market forces or individual liberalism.[414] Indigenous environmental management systems also depend on the group's ability to enforce its rules through traditional institutions which have authority that is recognized as legitimate by tribal members. To the extent that cultural attrition[415] and the presence of non-members on the reservation undermine the social cohesiveness of earlier, unwritten systems of tribal common law, it is possible that the effectiveness of traditional norms will ultimately depend on some formalization as tribal law, rather than as mere "custom."[416] An emergent legal discourse addresses the role of tribal court jurisprudence in securing tribal sovereignty and tribal values.[417] Although this material is beyond the scope of this Article, it is worth noting that the application of traditional norms to non-members is somewhat controversial and will likely depend upon incorporation into a tribal code and enforcement through civil law.[418]

Another fundamental issue is whether traditional environmental ethics, which are often fairly broad and general, can offer indigenous people practical guidance for contemporary economic development. As LaDuke notes, an economic system based on the values of Minobimaatisiiwin must be "decentralized, self-reliant, and very closely based on the carrying

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414. As Kapashesit and Klippenstein note, indigenous environmental ethics do not promote the idea that individuals have "claims" against other persons and nature. Rather, "[a]n Aboriginal person's individual self-interest is not assumed to be distinguishable from the good of the tribe, or indeed of the environment." Kapashesit & Klippenstein, *supra* note 105, at 941.

415. It cannot be denied that, with each generation, the problem of cultural attrition becomes more compelling. As Chairman Ronnie Lupe of the White Mountain Apache Tribe noted with respect to the loss of traditional knowledge about the land: "Our children are losing the land. It doesn't work on them anymore. They don't know the story about what happened to these places. That's why some get into trouble." POMMERSHEIM, *supra* note 20, at 34 (citation omitted).

416. As Professor Cooter notes, a central problem in legal anthropology is to "distinguish customary obligations that are enforceable at law (which can be called 'common law') from customary obligations that are not enforceable at law (which can be called 'mere customs')." Cooter & Fikentscher, *supra* note 383, at 22. The problem has cross-cultural overtones: "'Law' and 'custom' are what philosophers call 'contestable concepts', because disagreement over usage expresses disagreement over policies and values." *Id.* Professor Cooter's hypothesis, which he calls the "new utilitarianism," is that "aligning law with custom promotes efficiency and fairness." *Id.* at 23.

417. *See* Kapashesit & Klippenstein, *supra* note 105, at 956; POMMERSHEIM, *supra* note 20, at 193. For an excellent, in-depth discussion of tribal courts and their use of customary law, see Gloria Valencia-Weber, *Tribal Courts: Custom and Innovative Law*, 24 N.M. L. REV. 225 (1994).

418. For example, the Supreme Court has shown a marked resistance to the idea that tribal concepts of criminal justice could apply fairly to non-Indians. *See* Oliphant v. Suquamish Tribe, 435 U.S. 191 (1978).

capacity of the ecosystem."[419] The concept of Minobimaatisiiwin undoubtedly makes sense in land-based traditional economies, such as that of the Ojibwa and Cree, which focused on hunting, harvesting, and gardening. However, Minobimaatisiiwin may have more dubious value as an ethic to guide non-traditional enterprises, such as mining or commercial timber harvesting.[420] Traditionally, the people participating in the economic structure were largely participants in a closed system based on a consensual understanding of community norms and a collective decision-making process. Today, the economic structure is tied to the larger market economy of the United States and the participants in economic enterprise on the reservation often include non-Indian corporations with responsibilities to outside parties such as corporate shareholders. Thus, a broader range of stakeholders influences contemporary tribal economic and environmental policy.[421]

Notably, there are several examples of indigenous communities successfully applying traditional norms and values to community development projects. For example, the Zuni Pueblo instituted a comprehensive agricultural project that restores community control over food production and implements traditional methods consistent with the Zuni's unique environment such as "field rooting" and "dry farming."[422] Jim Enote, the director of the Zuni Conservation Project, describes the goals of the project as being based on traditional Zuni knowledge: "Reaching a modern vision of Zuni sustainability requires developing full

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419. LaDuke, *supra* note 261, at 129.

420. For example, it is unclear whether an ethic such as Minobimaatisiiwin could regulate activities such as mining or commercial timber harvesting on a "sustainable" basis, or whether the ethic would militate against conducting such activity at all. Jim Enote, director of the Zuni Conservation Project notes that before the Zuni Pueblo took control over land use on the reservation, federal projects resulted in gross mismanagement of Zuni lands and severe environmental damage. James Enote, Conservation at the Zuni Pueblo: Lessons in Sustainablility, Paper given at Natural Resources Law Center Conference on Sustainable Use of the West's Water (June 12-14, 1995) (unpublished manuscript, on file with author) [hereinafter Enote, Conservation at the Zuni Pueblo]. The Zunis were not included in federal land use policy-making decisions. Furthermore, the "change to a cash economy and value as labor had significant effects on Zuni agriculture and other land uses and knowledge of traditional Zuni land use technology began to disappear." *Id.* at 2-3.

421. Professor Cooter claims that indigenous customs can evolve and adapt to changing circumstances. *See* Cooter, *supra* note 98, at 792. Thus, "a framework for market transactions in land will evolve through changing customs." *Id.* It would be interesting to see how this theory plays out in the environmental arena, where intratribal land use conflicts are particularly virulent depending on whether a given use is perceived as being consistent with traditional norms or not.

422. LaDuke, *supra* note 261, at 139-40; Enote, Conservation at the Zuni Pueblo, *supra* note 418, at 4-5. *See generally* James Enote et al., The Zuni Resource Development Plan: A Program of Action for Sustainable Resource Development (1993); J. Enote & A. Mallari, Indigenous Peoples Issues, a working group paper to the President's Council on Sustainable Development (1994) (unpublished manuscript, on file with author).

partnerships with [the Zuni people and] promoting the status of Zuni values, traditional knowledge, and resource management practices."[423]

Similarly, among the Ojibwa and Cree people, several programs are in place which seek to restore both indigenous control over aboriginal lands and traditional resource management schemes. In Canada, traditional activities such as harvesting wild rice and blueberries have led indigenous nations to engage in organic crop development and marketing.[424] The Menominee Tribe of Wisconsin has also used indigenous management practices and harvesting techniques to achieve a very successful and sustainable forestry enterprise.[425]

The Confederated Salish and Kootenai Tribes of the Flathead Reservation in Montana have developed a comprehensive environmental regulatory and land use management scheme that rests heavily on traditional values. For example, the Salish and Kootenai Natural Resources Department developed the "Mission Mountains Tribal Wilderness Management Plan" ("Wilderness Plan") to prescribe how the Tribe will manage natural resources and human uses within the Wilderness.[426] In the Plan's statement of policy, the Tribal Council acknowledges that:

> Wilderness has played a paramount role in shaping the character of the people and the culture of the Salish and Kootenai Tribes; it is the essence of traditional Indian religion and has served the Indian people of these Tribes as a place to hunt, as a place to gather medicinal herbs and roots, as a vision-seeking ground, as a sanctuary, and in countless other ways for thousands of years.[427]

An important part of the Wilderness Plan is the preservation of cultural and historical resources. The Flathead Culture Committee was given a critical role in determining specific policies and actions to govern specific sites. In some cases this has resulted in barring public access to certain ceremonial and religious sites. The Flathead Culture Committee explains the importance of the Mission Mountains:

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423. Enote, Conservation at the Zuni Pueblo, *supra* note 420, at 5.

424. LaDuke, *supra* note 261, at 141-42.

425. *Id.* at 142.

426. Confederated Salish & Kootenai Tribes Wildland Recreation Department, Mission Mountains Tribal Wilderness Management Plan 3 (June, 1982) (on file with author). I am grateful to the staff members of the Confederated Salish and Kootenai Tribes' Natural Resources Department and Wildlife Management Program, who graciously discussed their programs and goals with me on my visit to the Flathead Reservation in June of 1993.

427. *Id.* at 7.

> Our elders have many stories to tell about experiences in the mountains in hunting, berry picking and about Indian people seeking their powers in the mountains. They have become for us, the descendants of Indians, sacred grounds. Grounds that should not be disturbed or marred. We realize the importance of these mountains to our elders, to ourselves, and for the perpetuation of our Indian culture because of these stories. They are lands where our people walked and lived. Lands and landmarks carved through the minds of our ancestors through Coyote stories and actual experiences. Lands, landmarks, trees, mountain tops, crevices that we should look up to with respect.[428]

A central purpose of the Wilderness Plan is to preserve the wilderness for future generations. As one tribal Committee noted: "These mountains belong to our children, and when our children grow old they will belong to their children. In this way and for this reason these mountains are sacred."[429] The mountains are thus preserved for future generations out of a "reverence for the land, its community of life, and what it means to the Indian culture than out of a need to enjoy the benefits of direct use."[430] Other documents developed by the Confederated Tribes to regulate environmental and land use on the reservation similarly speak to preservation of the tribal homeland[431] and to ensure that natural resources on the reservation "survive and inure to the benefit of future generations."[432]

The Northern Cheyenne Tribe is another example of an Indian nation that has applied traditional norms both to overcome the detrimental impacts of previous federal policies and to set a more positive direction for future policies. The Northern Cheyenne Reservation sits over the Fort Union coal formation, which stretches from northern Colorado to Canada, and houses an estimated 5 billion tons of coal worth approximately $400 billion.[433] A significant number of the Northern Cheyenne Tribe are committed to maintaining traditional values and have resisted efforts to strip-mine the vast coal reserves, even though tribal unemployment rates

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428. *Id.* at 63.

429. *Id.* at 83.

430. *Id.*

431. *See, e.g.*, Confederated Salish & Kootenai Tribes, Ordinance 89-B (Oct. 23, 1990) (stating that part of the policy and purpose of the Ordinance is to "preserve and enhance the Reservation environment as the permanent homeland of the people of the Confederated Salish and Kootenai Tribes").

432. Confederated Salish and Kootenai Tribes, Ordinance 44-D.

433. Daniel J. Wilson, *Coal, Water, Nation and Land at Northern Cheyenne*, FOURTH WORLD BULLETIN, Feb. 1993, at 12.

continue to hover at 50%.[434] During the 1970s, the Bureau of Indian Affairs leased more than half of the Cheyenne Reservation in Montana for coal mining.[435] The leases provided for minimal lease royalties (17 cents per ton) and had no environmental safeguards.[436] The Northern Cheyenne Tribe formed a committee to study ways to void the leases. After the Tribe brought its first lawsuit, federal legislation cancelling the leases was enacted in 1980.[437] The Northern Cheyenne Tribe's resistance to coal mining provides a sharp contrast to the neighboring Crow Tribe which is heavily engaged in coal mining[438] and has opposed the Northern Cheyenne Tribe's attempts to secure enhanced protection for air quality.[439]

The Northern Cheyenne Tribe was the first Indian nation to petition the EPA under regulations to the Clean Air Act[440] to redesignate the reservation air quality as "Class I," a class reserved for near-pristine air quality.[441] This was an important step in mitigating the air quality impacts of the two power plants directly north of the Reservation at Colstrip, Montana.[442] The need for pristine air quality was a means of perpetuating

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434. *Id.*

435. Gail Small, *Voices from Northern Cheyenne Indian Country*, *in* PEOPLE OF COLOR ENVIRONMENTAL GROUPS 22 (Robert D. Bullard ed., 1994).

436. *Id.*

437. Wilson, *supra* note 433, at 12. This is a rather complex case study and commentators offer somewhat inconsistent descriptions. Marjane Ambler offers a detailed look at the motivations behind the Northern Cheyenne's struggle to void the coal leases. *See* AMBLER, *supra* note 24, at 62-67. She asserts that the Tribe sought to void the leases primarily because it considered them unfair, not because it was opposed to mineral leasing in principle. She also says, however, that later proposals for mineral leasing, which would allow the Tribe more control, provoked considerable dissension within the tribe, indicating that at least part of the tribe was opposed to mineral extraction in principle. *See id.* at 70. The Wilson article supports the position that there is a serious division among tribal members as to whether coal strip-mining should be undertaken on the Northern Cheyenne Reservation.

438. For example, as of 1973 "AMAX, Peabody, Gulf Mineral Resources, Shell Oil Company, and Westmoreland Resources held coal permits and leases for 234,787 acres" on the Crow Reservation. AMBLER, *supra* note 24, at 65. The disparate attitudes toward coal mining displayed by the Crow and Northern Cheyenne illustrate the fact that one cannot generalize about "indigenous environmental ethics" and their relationship to contemporary economic development.

439. The Crow Tribe argued, for example, that the EPA's approval of the Northern Cheyenne Tribe's request to redesignate the air quality from Class II to Class I constituted a breach of its trust responsibility to the Crow Tribe, which feared that the redesignation would curb development on the Crow reservation. *See* Nance v. EPA, 645 F.2d 701, 710-11 (9th Cir. 1981).

440. The EPA first issued Prevention of Significant Deterioration regulations to allow designation of air quality as Class I, Class II, or Class III. *Id.* at 704. The regulations administratively authorized Indian tribes to redesignate their reservations from Class II to either Class I or Class III. *Id.* Congress specifically amended the CAA in 1977 to grant Indian nations the authority to redesignate their reservation air quality. *Id.* at 714.

441. *See id.*

442. *See* Wilson, *supra* note 433, at 12.

the Northern Cheyenne commitment to the holistic preservation of the Cheyenne "environment, culture, and religion."[443] The Class I air quality designation enabled the Northern Cheyenne to bring a lawsuit against Montana Power, which operates the power plants.[444] Through the lawsuit, the Northern Cheyenne "gained funds for impact mitigation, additional funds and training for air quality monitoring, and also preferential hiring agreements."[445]

Gail Small, a member of the Northern Cheyenne Tribe and current director of Native Action, an environmental group, describes work she did on the Tribe's water code, which also sought to incoporate tribal religion. She took the draft code to the five villages on the reservation for public input and discovered that "protection of water spirits was the pre-eminent concern throughout the reservation, and that the spirits varied depending on whether the water source was a river, lake, or spring."[446] Small describes how tribal attorneys, appointed by the federal government to draft the code, ridiculed her findings.[447]

As these examples demonstrate, the Northern Cheyenne Tribe has been on the road to environmental self-determination for quite some time, although its efforts have been to some extent constrained by federal law and the federal bureaucracy. The Northern Cheyenne continue to contend with economic and political pressures to develop their coal resources, and the Tribe is currently embroiled in a controversial proposal to begin strip-mining under a joint ownership agreement. The agreement, which would give the Tribe a 51% ownership interest in the mining operation, has faced objection from traditional tribal members concerned with the impacts of mining on their lands and culture.[448] Many of these tribal members also object to a negotiated compact between the Tribe and the State of Montana over water rights, asserting that the Tribal Council did not gain a consensus from all tribal members as to the appropriate resolution of tribal water rights.[449]

These cases illustrate that for many tribes it is important to incorporate traditional values when developing contemporary regulatory schemes and economic development plans. This may be essential to

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443. *See* Small, *supra* note 435, at 22-23.

444. Wilson, *supra* note 433, at 12.

445. *Id.*

446. Small, *supra* note 435, at 23.

447. *Id.*

448. Wilson, *supra* note 433, at 13.

449. *Id.* at 13-14.

realizing environmental self-determination.[450] The Salish and Kootenai Tribal Natural Resources Department, for example, relies on the scientific, legal, economic, and traditional expertise of tribal members and consultants in formulating its policies and ordinances. The Flathead Reservation has a diversified economy that rests primarily on tourism, recreation, and gaming. The Tribe's environmental program is widely recognized as one of the most comprehensive tribal regulatory programs in the country and has been very successful in responding to environmental concerns.

What happens when a Tribe's reservation does not possess the type of area or resources necessary to facilitate a diversified economy that allows traditional land based economies to coexist with other types of development? Alternatively, what happens when a Tribe decides to undertake a land use that may potentially limit or preclude traditional land uses from continuing? These issues raise another category of cases: tribal environmental policy that departs, or appears to depart, from traditional norms.

### *B. Tribal Environmental Policy That Departs from Traditional Norms*

There are several categories of land use that appear to be inconsistent with the traditional environmental norms that we have explored, including coal strip-mining, uranium mining, and siting solid, hazardous, or nuclear waste repositories on tribal land. Both the mining industry and the waste industry carry the potential of severe environmental degradation and, as a result, would appear to be diametrically opposed to traditional indigenous land ethics. Yet both industries have found homes on some Indian reservations. Why?

The decisions of individual tribal councils to engage in such economic development are heavily dependent upon the unique circumstances of each tribe, its history, and socio-economic characteristics. Thus, the answer to the question of "why" a specific Indian nation would engage in such

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450. A good example is the Blackfoot Tribe's fish and game code, which requires tribal members to make use of the entire animal after killing it: "[w]asting any part of an animal, as trophy hunters do, is a crime on the Blackfoot reservation." Cooter & Fikentscher, *supra* note 383, at 53. Of course, such sanctions could not be enforced against non-Indians, due to the Supreme Court's ruling in the *Oliphant* case. Oliphant v. Suquamish Indian Tribe, 435 U.S. 191, 210 (1978) (holding that by submitting to the overriding sovereignty of the United States, Indian tribes therefore necesssarily give up their power to try non-Indian citizens of the United States). However, it is reasonable to assume that tribes which allow non-Indians to hunt on the reservation, such as the Mescalero Apache Tribe, could condition such hunting to meet traditional norms.

economic development is clearly beyond the scope of this Article. Yet there are certain facts that appear to be uniformly true and may illuminate the *possible* reasons for such decision-making.

### 1. The Mining Industry and Indian Reservations

First, with respect to the mining industry, it is certainly true that to a large extent, all Indian nations have been subjected to successive federal policies which encouraged the exploitation of mineral resources on Indian lands. In the late nineteenth century and early twentieth century, Indian treaty lands were often removed from Indian ownership and trust status to facilitate mineral exploitation. For example, the Crow Reservation once encompassed 39 million acres, including vast stores of coal, oil, and natural gas.[451] After several land cessions, the Crow Reservation now encompasses only 2.2 million acres, although the Tribe has reserved mineral rights in certain of the ceded lands.[452] Other lands remained in tribal ownership but were leased out for mineral development by BIA officials convinced, as was Commissioner of Indian Affairs Cato Sells, that it is "an economic and social crime . . . to permit thousands of acres of fertile land belonging to the Indians and capable of great industrial development to lie in unproductive idleness."[453]

By the time the New Deal was implemented and the IRA enacted to promote tribal self-government, tribal councils were organized largely to "rubberstamp" the BIA's approval of mineral leasing on the reservation.[454] Marjane Ambler notes, for example, a potential connection between energy development and certain tribes' decisions to organize under the IRA. She observes that while the federal government stifled many tribes' traditional governments, the Interior Department "allowed—and in some cases encouraged—the tribal governments of some energy reservations to continue functioning through those early years because it needed their action on energy leases."[455] Thus, tribal councils were not asked to examine their traditional value systems and determine whether mineral exploitation was compatible. They were asked to sign off on an economic development policy that United States officials felt was in their best interest. Without direct policy control over mineral development, Indian nations were exploited financially and their lands and people were

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451. AMBLER, *supra* note 24, at 34.

452. *Id.*

453. *Id.* at 37 (citing statement made by Commissioner Sells in 1914).

454. *Id.* at 31-61.

455. *Id.* at 18.

subjected to severe environmental contamination. By the 1970s, the beginning of the era of "self-determination," Indian nations could only hope to control the damage by renegotiating lease terms that practically gave away their mineral resources and by seeking remediation for the environmental degradation.[456] These efforts gained strength with the formation of the Council of Energy Resource Tribes (CERT), an inter-tribal organization dedicated to achieving economic parity for tribes with energy resources.[457] Significantly, however, CERT's agenda was to maximize the ability of Indian nations to profit from resource development. Thus, although CERT's efforts were directed at enhancing tribal self-determination, its guiding ethic appeared to be rooted in the utilitarian norms of Anglo-American society rather than in the traditional environmental ethics of its various member tribes.

In fact, many tribal members continue to protest mining operations on reservation lands, contending that such industry dries up precious water supplies, pollutes water, and endangers the health of people and livestock.[458] The mining companies, however, point to the economic benefits they have offered to tribal communities, including increased funding for education.[459] Given these competing claims, tribal decisions on mining policy are not clearly "right" or "wrong." Nor can tribal governments be faulted for trying to maximize the gain from on-going resource development by renegotiating lease agreements. In many cases, after nearly a century of mineral exploitation, there was no realistic opportunity to go back to a pristine natural world that would enable a traditional land based economy to flourish. The traditional land bases had been badly eroded, open mines and mineral tailings were located throughout many reservations, and many tribal members were dependent upon jobs with the local mines. Ambler notes that in the thirty years that the Anaconda Minerals Company operated a uranium mine on Laguna Pueblo lands in New Mexico, it "had completely changed the local economy from agriculture to mining, employing thousands of tribal

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456. *Id.* at 78; *see, e.g., id.* at 180-81 (describing the reclamation of Indian lands contaminated by uranium mining).

457. *See id.* at 91-117.

458. *See, e.g.*, Steve Yozwiak, *Activists Want to Shut Coal Mine on Reservation*, ARIZ. REPUBLIC, Aug. 22, 1995, at B1 (commenting that nearly 500 Indians signed a petition protesting the federal government's renewal of a five-year permit for Peabody Coal Co. to run the Kayenta Mine on the Navajo reservation; the mine ships nearly 7.5 million tons of coal annually to the Navajo Generating Station near Page, Arizona).

459. *See, e.g.*, Mary Joan Martin, *Navajo Cling to Past While Reaching for the Future*, COAL, Nov. 1992, at 36.

members over the years."[460] After Anaconda pulled out, the Pueblos had to pressure the company to provide funds to remediate the massive contamination at Laguna.[461] Similar problems plagued other reservations with long-term leases for mineral extraction. The best that many of these tribes could do was to gain control over existing resource exploitation and attempt to make it financially productive and environmentally safe. CERT's leadership in these areas was very important.

These federal policies have also inculcated economic dependence on mineral revenues in many cases, leading some commentators to accuse federal policy of treating Indian reservations as resource "colonies" open to exploitation by energy corporations.[462] The success of tribal economic development is often dependent upon the vagaries of the national global market for mineral resources.[463] For example, tribal energy reserves commanded national attention during the "energy crisis" of the 1970s.[464] Moreover, even after the 1982 Mineral Development Act was passed to allow tribes to enter partnerships with industry as mineral developers and choose which development schemes to pursue, the Tribes were forced to compete as market players in a system where traditional values held no place.[465] Although Indian nations have entered an era of "self-determination," it may be that the colonial past of mineral development on Indian lands has set up permanent inequities for reservation economies. Furthermore, the mineral industry, with its long and checkered past, can be compared to the waste industry, a relatively recent arrival to reservation economic development.

### 2. The Waste Industry and Indian Reservations

The "Not in My Backyard" movement among urban environmentalists and concerned citizens and increasingly stringent state environmental regulations have promoted the recent trend of waste disposal companies to

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460. AMBLER, *supra* note 24, at 181.

461. *Id.* at 181-83.

462. *See, e.g.*, WARD CHURCHILL, STRUGGLE FOR THE LAND 261, 307 (1993). Churchill also discusses the James Bay Hydroelectric Project as creating an "energy colony" that exploited indigenous people in Canada. *Id.* at 336-43.

463. Some commentators have noted that globalization has historically resulted in the impoverishment of Aboriginal people, and that "modern" forms of globalization such as oil and gas production and mineral exploitation have not been any more benevolent. *See* CLARKSON ET AL., *supra* note 285, at 21-22. Rather, the result has been displacement from land and destruction of animal and plant species that indigenous peoples have traditionally depended on. *Id.* at 22.

464. *See* AMBLER, *supra* note 24, at 68 (discussing the impact of the 1973 OPEC embargo on American energy policy).

465. *See id.* at 237.

approach tribal governments.[466] The quasi-sovereign trust status of Indian lands has long exempted them from many types of state regulation, and the remote locations of many reservations appeal to the waste industry. From 1990 to 1992, many tribes were approached by waste disposal companies with proposals to site hazardous and solid waste repositories on tribal lands.[467] In some cases, such as the Campo case, these proposals have been enthusiastically accepted by tribal leaders as providing economic hope to desperately impoverished reservations. In other cases the proposals have been greeted by community outrage and allegations of genocide. As one Navajo leader commented, it is often hard to tell whether such a project represents "economic development or genocide."[468]

In 1989, for example, officials from High Tech Recycling and Waste Tech, Inc. of Colorado arrived in the community of Dilkon on the Navajo Reservation, proposing to lease 100 acres of land for a hazardous waste disposal plant that would include an incinerator and landfill.[469] At the time, the community had an unemployment rate of 75%. The company offered to "invest $35 million, bringing millions in revenue for the local economy, a new hospital and 175 jobs."[470] Local tribal officials initially approved the project, but other community leaders formed a chapter of Dine CARE ("Citizens Against Ruining Our Environment"), a grassroots environmentalist movement. Dine CARE educated the community about the dangers of the project, not an easy task, as one Navajo activist noted, when "[t]here are no words in the Navajo language to describe the kind of poisons that technology has enabled man to produce."[471] The community eventually defeated the proposal.

A similar situation occurred on the Rosebud Sioux Reservation in South Dakota where a Connecticut waste company convinced the Tribal Council to approve a landfill.[472] The landfill project was defeated when other tribal members found out about the approval and organized an

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466. *See* Kevin Gover & Jana Walker, *Escaping Environmental Paternalism: One Tribe's Approach to Developing a Commercial Waste Disposal Project in Indian Country*, 63 U. COLO. L. REV. 933, 935 (1992) (acknowledging that reservation poverty and NIMBY pressure are factors in the movement to site waste facilities on Indian lands, but remarking that it would be a mistake to assert that "reservations alone have been targeted by the waste companies").

467. *See* Valerie Taliman, *Native Americans and the Perils of Toxic Waste*, NAVAJO TIMES, July 16, 1992, at A12.

468. *Id.*

469. *Id.*

470. *Id.*

471. *Id.* (quoting George Joe, vice president of Dilkon's CARE).

472. *Id.*

opposition movement.[473] The defeat, however, came at the cost of "a protracted, painful struggle that split families and the community over issues of economics and environment."[474] Opposition to the waste projects in both the Rosebud and Dilkon communities united Indian traditionalists and community activists, leading to "Protecting Mother Earth" conferences in 1990 in Dilkon and in 1991 in South Dakota.[475] The conferences brought together Indian people from across the United States in an effort to educate other communities about what activists view as the environmental desecration of Indian lands and peoples.[476] In addition to workshops and training on community organizing, fundraising, and planning, the participants were instructed by traditional elders who offered spiritual guidance and perspectives.[477] As one Dine CARE member observed: "Culture and tradition define the essence of environmentalism, which is to live respectfully with Mother Earth—not to desecrate her."[478] This view is echoed by some indigenous people in Canada who have argued for policies that would prevent companies and municipalities from exploiting indigenous peoples by using their lands as "dump sites for industrial, nuclear, medical and other toxic wastes."[479]

However, not all tribes agree that the waste business imperils Indian lands and communities. The Salt River Pima-Maricopa Community in Arizona has opened a second phase of its solid-waste landfill, established in the early 1980s.[480] The Campo Band in California is proceeding with its landfill project after a heated battle with local non-Indians who opposed the project.[481] Interestingly, by 1993, all members of the Campo Band supported the waste project and its only opposition has been from non-

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473. *Id.*

474. *Id.*

475. *Id.*

476. Lori Goodman, *Dine Citizens Against Ruining our Environment Want to Protect the Land*, NAVAJO-HOPI OBSERVER, June 3, 1992, at 5.

477. *Id.*

478. *Id.*

479. CLARKSON ET AL., *supra* note 285, at 70.

480. *See* Chuck Hawley, *Newest Landfill Officially Open for Business*, ARIZ. REPUBLIC, June 1, 1994, at A11. The new landfill replaces one that was irreparably damaged by flooding of the Salt River in 1992 and was permanently closed. Environmentalists sued the Salt-River Pima Maricopa Indian Community and several cities that used the landfill under the citizen suit provisions of the Resource Conservation and Recovery Act. *See* Atlantic States Legal Foundation v. Salt River Pima-Maricopa Indian Community, 827 F. Supp. 608, 609 (D. Ariz. 1993). The lawsuit was eventually settled. *See* Steve Yozwiak, *Three Cities, Tribe Settle Landfill Flood Suit; Environmentalists Claiming Victory*, ARIZ. REPUBLIC, May 2, 1995, at B1.

481. *See* MCGOVERN, *supra* note 4, at 110-11; 60 Fed. Reg. 21,191 (1995) (EPA's Notice of Final Determination for Full Program Adequacy for the Campo Band of Mission Indians Application).

Indian residents of the adjacent community.[482] Why was the sentiment at Campo different from Dilkon, Rosebud, or the Los Coyotes Reservation, also located in Southern California, where tribal members finally rescinded the Tribal Council's approval of a waste facility?[483]

Poverty is obviously a factor in Campo's decision, but it is a factor that Campo shares with the tribes that have defeated such proposals.[484] In 1987, when Campo first started considering the landfill proposal, the tribal unemployment rate was 79%, and more than half of those who were employed earned less than $7,000 per year.[485] By 1992, tribal unemployment had fallen to 30% and the Tribe was taking in revenues of $700,000 per year, all as a result of funding provided by the waste company.[486] Campo's deal enabled the Tribe to start getting revenues even before the waste facility was operational, providing immediate financial relief to the impoverished Tribe.

Another factor in Campo's decision was that the Tribe's relatively small, remote, and arid reservation offered no other realistic opportunities for economic development. In the late 1800s, the Tribe was removed from its arable traditional lands to an area that one BIA official at the time described as "so nearly worthless that a living by farming is out of the question."[487] In the ensuing century, the Tribe's only revenue came from sand mining and leasing lands for cattle grazing. Neither was particularly successful: the sand business was limited by a remote location and high transportation costs; the lease revenues from cattle grazing were low due to the poor quality of the lands (requiring several acres per head).[488] The reservation's remote location also made it a poor candidate for Indian gaming—several reservations were much closer to the San Diego area where the consumers were located.[489] Moreover, every other enterprise that the Tribe suggested, such as a cement plant or honey production, was vetoed by the Tribe's non-Indian neighbors concerned about the impacts on their property values and enjoyment of the land.[490] The waste industry

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482. MCGOVERN, *supra* note 4, at 196.

483. *Id.* at 227.

484. Studies show that "reservation employment rates often climb as high as 60 or 70%." POMMERSHEIM, *supra* note 20, at 7. Indeed, as Professor Pommersheim notes, Todd County on the Rosebud Soiux Reservation ranks as the eighth poorest county in the nation. *Id.* at 202 n.1. Nevertheless, the Rosebud Souix Tribe rejected the proposal for a landfill on its land.

485. MCGOVERN, *supra* note 4, at 24.

486. *Id.*

487. *Id.* at 21-22.

488. *Id.* at 107-08.

489. *Id.* at 109-10.

490. *See id.* at 111.

was a potentially viable business for the Campos, partly because the reservation was and would be strategically located for urban markets seeking to export their waste to remote areas. However, remote location and lack of other economic development opportunities are factors that other reservations possess as well.

Dan McGovern, a former EPA official who has written about the Campo project, compares Campo's decision to go forward with the landfill with the Los Coyotes Band's decision to reject a landfill. Several members of the Los Coyotes Band have been quite outspoken about the fact that a landfill is inconsistent with traditional norms about appropriate land use, while members of Campo appear not to have discussed their traditional norms with outsiders.[491] While one might speculate that other commonalities between the Bands indicate that there were probably comparable norms at one time, this speculation is not grounded in proof. However, McGovern does note similarities between the two tribes: both reservations are located in rural Southern California and share a history of economic deprivation, a remote location, and a lack of development alternatives.[492] McGovern finds several key factors responsible for the Tribes' very different reactions: first, whether tribal members found the decision-making process to be consistent with tribal laws, customs, and traditions; second, whether the tribal chairman acted competently in representing the Tribe's business interests; third, whether concerns of the tribal members about environmental safety could be addressed by a credible environmental education and regulatory program; and finally, "whether opposition to the project by non-Indians was perceived by tribal members as an attack upon tribal sovereignty."[493]

McGovern finds that all of these factors worked to promote the Campo's decision to go forward with the project, while these factors were not present for the Los Coyotes Band, leading community members to reject the proposal.[494] The first three factors are essentially internal, raising issues of how responsive the tribal government is to community concerns and how effective the government is at negotiating with outside interests as well as representing its own citizens. The final factor, tribal sovereignty, raises different issues: that is, whether opposition by non-Indians is seen as an attack on the tribe's ability to engage in self-determination as a sovereign government. In the Campo case, non-Indian activists pressured state legislators to introduce legislation that would

491. *See id.* at 231.

492. *Id.* at 223.

493. *Id.* at 231 (emphasis omitted).

494. *See id.* at 231-47.

extend state regulation to waste facilities on Indian land, constituting a blatant attempt to intrude on tribal sovereignty. McGovern suggests that if tribal members perceive a threat to their sovereignty, they tend to unite against the off-reservation forces, even if that means supporting a decision that may be contrary to certain traditional norms about appropriate land use.[495] Thus, the value of maintaining tribal sovereignty may prevail over the value of protecting the integrity of the land. In fact, the Campo landfill represents some risk of permanent groundwater contamination, and thus, potential loss of the ability to even live on the reservation.[496] However, the risk to sovereignty appears to have been perceived as the more immediate threat.[497]

### 3. Concluding Thoughts

Although the history behind the waste industry differs from that of the mining industry, it is not surprising that some Indian people believe that both industries share important links. Lori Goodman, a member of Dine CARE, observes:

> [N]ative people [have] sacrificed more for America than any other group. The energy companies had come to Navajo land years ago to mine coal which would fuel power plants for Las Vegas, Nevada, and Southern California.
>
> This created smog, destroyed ceremonial herbs, desecrated sacred sites, depleted and polluted groundwater.[498]

Goodman draws a parallel with uranium mining on the Navajo reservation, which enabled the creation of the atomic bomb, but left the Navajo people with a devastating legacy of "abandoned and unreclaimed open-pit and underground uranium mines" and the attendant high cancer and birth

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495. *Id.* at 240-47.

496. The fractured nature of the unweathered bedrock beneath the Campo landfill requires more monitoring wells than are typically found at other solid waste landfill sites, and the aquifer underlying the landfill is the sole source of the area's drinking water. *See id.* at 197.

497. This is consistent with the point made by Campo's attorneys, who assert that "[f]or tribes considering developing commercial waste projects on their reservations, the major issue they face will not be an environmental one, but instead one of power and racism." Gover & Walker, *supra* note 466, at 942. This argument indicates that mandatory environmental compliance will take care of the potential pollution problems to some extent; however, the tribe's ability as a sovereign to undertake the economic development scheme of its choice appears to be endangered by the political outcry over waste enterprises on Indian land.

498. Goodman, *supra* note 476, at 5.

defect rates caused by radioactive contamination.[499] She concludes: "To add insult to injury, we [are] now expected to welcome the chemical as well as radioactive waste of mass society. To us, it was morally wrong to saddle our people with more waste. We could not stand by and allow corporate America to poison us further."[500] Tom Goldtooth, the environmental coordinator for the Red Lake Band of Chippewa, agrees that the policy of industrialized countries appears to deem native people "expendable in the name of progress" and challenges tribal leaders, as well as state and federal governments, to be accountable to the "grassroots people from the community level."[501]

These comments from tribal members demonstrate that the underlying norms of tribes who engage in nontraditional economic development may in fact be similar to that of the traditional "model" cited above. Tribal governments who depart from traditional norms to engage in nontraditional economic development are responding to a complex history and set of realities. As the above cases demonstrate, these departures may be caused by a lengthy history of competing values imposed by federal policy, by values formulated as a protective response to ensure the continuation of tribal sovereignty, by values stemming from economic dependency on earlier development decisions, and by the cultural loss that has become endemic to many reservations as a result of loss of traditional lands, resources, and a certain measure of sovereignty. These harsh realities may be encompassed to some extent within what I call "value colonialism"—the systematic displacement of traditional values by those of the majority society.

It is possible, of course, that in some cases indigenous groups do not adhere to the same traditional norms that many other groups share—namely the idea that man's activities must be balanced against the needs of the natural world, and the idea that the earth is alive and should be treated with reverence and respect. Ronald Trosper makes this point about the overgrazing of sheep and cattle on the Navajo reservation.[502] Trosper distinguishes Anglo-imposed institutions leading to disrespectful policies, such as the clearcutting of cedar forests on the Quinault reservation, with tribally-imposed policies that counter the predominant indigenous ethic of respect, such as Navajo overgrazing.[503] Trosper asserts that Navajo overgrazing is an example of an open-access property rights

499. *Id.*

500. *Id.*

501. Gilles, *supra* note 85, at 1.

502. Trosper, *supra* note 262, at 87-88.

503. *Id.*

system leading to overuse—the "tragedy of the commons" that Garrett Hardin spoke of.[504] He further asserts that the Navajo system of ethics does not stress planning for future generations, as do many other indigenous systems of ethics. Trosper suggests that for the Navajo, there is no duty to limit one's use of resources; rather, "[p]roper behavior leads to increase without decrease, suggesting an unlimited future."[505]

If Trosper is correct, it appears as though some indigenous values are centered upon maximum productivity and short-term profitability in resource use much like the predominant Euro-American model of environmental ethics. However, other scholars have emphasized that the Navajo system of ethics also focuses on respect for the earth, reciprocity, and balance, suggesting that resource use has some limitations.[506] The Navajo believe, for example, that an individual's health depends upon his ability to maintain a "reciprocal relationship with the world of nature, mediated through ritual."[507] Navajos also believe that an inability to control one's desires, leading to excess, can lead to disharmony with the natural world and cause illness and misfortune.[508] These normative constraints suggest that overgrazing that leads to erosion and other damage to the land would not be perceived as correct behavior.

It is likely, therefore, that overgrazing on the Navajo reservation stems from many different factors, including an increasing population and decreasing land base. Perhaps cultural loss is also part of the cause if the people perceive their behavior to be in accordance with norms of productive use, and are not aware, or do not care, that it is inconsistent with other traditional norms that would require them to limit their use to preserve the land. An analogous case is posed by a group of indigenous people in Marwar, India, whose overgrazing of sheep in an arid land has resulted in desertification, drought, and famine.[509] In that case, the indigenous economy was transformed, first by incorporation into the British market system and, second, by a series of "land reforms" after

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504. *Id.* at 87.

505. *Id.* at 88.

506. *See, e.g.*, BECK & WALTERS, *supra* note 262, at 279-80.

507. *Id.* at 279. As Barre Toelken observes, the Navajo, like many other indigenous people, see religion as "embodying the reciprocal relationships between people and the sacred *processes* going on in the world." Barre Toelken, *Seeing with a Native Eye: How Many Sheep Will it Hold? in* SEEING WITH A NATIVE EYE: ESSAYS ON NATIVE AMERICAN RELIGION 14 (Walter H. Capps ed., 1976) (emphasis in original). Thus, Navajo medicine men traditionally cured their patients by reestablishing the relationship of the patient with the rhythms of nature. *Id.* at 15.

508. *See* BECK & WALTERS, *supra* note 262, at 280.

509. CLARKSON ET AL., *supra* note 285, at 17-18.

India claimed independence from Britain.[510] The indigenous people grew increasingly reliant on sheep breeding, formerly only a small part of their economy, with resultant ill effects on the land.[511] Similarly, the Navajo people today occupy only a fraction of their traditional land base and have encountered serious obstacles in their efforts at economic development. Sheep grazing represents an important link to self-sufficiency for a group of people who have traditionally resisted dependency upon the United States government. Thus, although sheep grazing is obviously responsive to some traditional values, the realities of geography and overpopulation may threaten the integrity of the land base that sustains the people.

In any case, the overgrazing example suggests that it is impossible to attribute a uniform code of ethics to all indigenous peoples. Moreover, the Campo waste facility suggests that exercises of tribal sovereignty will not always result in adherence to traditional norms of economic or environmental conduct. Colonialism has left a devastating legacy for many tribal lands and traditional economies, and contemporary tribal leaders face compelling challenges. Nevertheless, it is apparent that resource use can cause environmental impacts across jurisdictional boundaries. Thus, the problems that confront tribal leaders are problems for the majority society as well, and the reverse is also true. It is necessary, therefore, to consider what contributions tribal environmental decision-making can make to regional and global management.

### *C. The Implications of Tribal Environmental Policy on Regional and Global Management*

The global community faces common resource issues but is comprised of distinct (and sometimes overlapping) spheres of sovereignty: foreign nations, Indian nations, the United States government, and the various state governments. How do these various governments come together on mutual issues when they generate such diverse normative responses to environmental policy? More importantly, can parallel legal systems and value systems governing environmental use even coexist within a common geographical region? For example, is the indigenous notion of "sustainability" compatible with an emerging international notion? And what special role should Indian nations have in making resource decisions?

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510. *Id.* at 18.

511. *Id.*

Should this role be based on their status as indigenous peoples, as governments, or as "nongovernmental organizations?"[512]

First, it could be argued that Indian people should have *greater* rights to decide what use will be made of land within a certain region, based on their longstanding relationship to the land.[513] Kapashesit and Klippenstein claim that the local management system of indigenous groups is the "preferred means of conservation" in many cases and that the "government should be required to integrate Aboriginal ecological management systems into environmental protection programs."[514] This is consistent with LaDuke's claim that traditional indigenous knowledge is the best way to understand the ecological complexities of a given geographical region, and even surpasses "scientific knowledge" in many cases.[515] Applying these claims to the current controversy on the Flathead reservation, one can appreciate how the application of state water quality standards to fee lands within the reservation could undermine the goals of the Confederated Salish and Kootenai Tribes' environmental regulatory program.[516] State environmental programs do not incorporate traditional indigenous knowledge or values, yet they are capable of defeating successful tribal programs which may be premised in part on traditional value systems.

Some states, of course, assert that their environmental programs promote "resource conservation," leading to the inference that they would therefore be compatible with traditional indigenous norms. One should query, however, whether concepts such as "conservation," "stewardship," and "sustainability" hold different meanings for indigenous peoples than

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512. Internationally, indigenous peoples have most often been treated as nongovernmental organizations, while nationally, Indian nations are recognized as governments. For an excellent discussion of these different status judgments and their impact on indigenous peoples, see generally Williams, *Encounters on the Frontiers*, *supra* note 15.

513. This argument was made, for example, by indigenous peoples at the Rio Summit, who justified their claims to self-determination in the fields of natural resource management and development by "arguing that indigenous peoples are superior stewards of the land and that strengthening indigenous peoples' traditional economies would contribute to solving global ecological and economic problems." Barsh, *Indigenous Peoples*, *supra* note 10, at 278.

514. Kapashesit & Klippenstein, *supra* note 105, at 961.

515. LaDuke, *supra* note 261, at 127.

516. The State of Montana recently sued the EPA over its decision to approve the Confederated Salish and Kootenai Tribes' water quality standards, asserting that the EPA incorrectly interpreted the relevant principles of federal Indian law in determining that the Confederated Tribes' had demonstrated adequate jurisdiction over water sources throughout the reservation, which contains a significant portion of non-member owned fee lands. Memorandum in Support of Plaintiffs' Motion for Summary Judgment at 10-17, Montana v. EPA, 941 F. Supp. 945 (D. Mont. 1996).

for non-indigenous peoples.[517] Gerald Reed asserts, "[g]iven their reverence for the Creator and his creatures, Native Americans generally lived according to an ethic of conservation."[518] Building on the discussion of indigenous environmental ethics outlined above, it becomes apparent that "conservation" for indigenous peoples is the natural result of traditional world views that stress reciprocity and kinship with other living things and counsel avoidance of waste or misuse of natural resources. Indigenous world views emphasize the intrinsic value of the natural world and the place of human beings as part of the earth. Conservation in the utilitarian sense of American environmental policy, however, merely indicates the "rational, prudent exploitation of natural resources to obtain from them the maximum sustained yield."[519] Natural resources have no value independent of their role in serving human needs. To many state citizens, therefore, "conservation" may mean only that the environment is to be exploited at a slower pace, but the underlying economic forces encouraging development remain constant.[520]

Of course, even if the underlying conservation goals are similar among indigenous peoples and the majority society, what should be the outcome if indigenous knowledge and scientific knowledge lead to contradictory results? A case in point is the conflict over Inupiat harvesting of the bowhead whale and the national and international efforts to protect the whale as an endangered species.[521] The Inupiat, a group of Inuit people who inhabit portions of Alaska's North Slope, traditionally harvested the bowhead whale. The Inupiat in fact refer to themselves as the "People of the Whale" and claim that: "The whale is more than food to us. It is the center of our life and culture. . . . The taking and sharing of the whale is our Eucharist and Passover. The whaling festival is our

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517. Indeed, perhaps it is impossible for non-Indians to reach agreement about the meanings of these terms.

518. Reed, *supra* note 252, at 31.

519. Callicott, *supra* note 244, at 257.

520. Senator Frank Murkowski of Alaska, for example, who has advocated increasing logging in the Tongass National Forest and commencing oil drilling in the Arctic National Wildlife Refuge, has been quoted as saying that the "agenda for our state has been to provide for the economy." *See* Lacayo, *supra* note 117, at 70. Representative Donald Young from Alaska agrees, claiming to be a "true conservationist," as "one who believes in the environment, including the presence of man." *Id.* at 71.

It should be noted, however, that indigenous people also disagree about appropriate land use. For example, the Inuit of Alaska favor opening the Arctic National Wildlife Refuge for oil drilling, while the Gwich'in people of Alaska vehemently oppose this.

521. *See* Michael L. Chiropolos, Note, *Inupiat Subsistence and the Bowhead Whale: Can Indigenous Hunting Cultures Coexist with Endangered Animal Species?*, 5 COLO. J. INT'L. ENVTL. L. & POL'Y 213 (1994).

Easter and Christmas, the Arctic celebrations of the mysteries of life."[522] Thus, to the Inupiat, the whale is more than a means of "subsistence"; it is a symbol of the people and a "socio-cultural identification of a traditional and unique lifestyle."[523] In fact, Congress recognized the dependence of the Alaskan native people on the whale and other resources and enacted statutes affirming the rights of Alaskan natives to pursue traditional hunting activities.[524]

Intensive European commercial whaling from 1848 to 1910 severely decimated the bowhead whale stocks.[525] As of 1946, attempts to regulate commercial whaling had failed; fourteen of the commercial whaling nations responded by negotiating a treaty to regulate whaling.[526] The International Convention for Regulation of Whaling set up the International Whaling Commission (IWC) to enact specific regulations to conserve the whale resource.[527] The IWC was largely ineffective in conserving whales until the 1970s, when United States leadership implemented true "conservation" goals.[528]

The IWC established stringent quotas on whale harvest by gathering scientific data on the number of available whale stocks.[529] Although the IWC had permitted an Inupiat exemption to the quota restrictions up until 1977, in that year IWC scientists called for a "zero harvest" and sought to abolish the Inupiat exemption.[530] The Inupiat protest to this development was not merely premised on a subsistence issue.[531] As several cultural anthropologists observed, the zero harvest rule would not only pose a subsistence problem for the Inupiat, (which ostensibly could be mitigated by issuing rations) it would endanger their cultures and their very existence as a people.[532]

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522. *Id.* at 216 (quoting Eben Hopson, *The People of the Whale: A Fight for Survival*, 4 INDIAN AFF. 1, at 7-8 (1979)).

523. *Id.* at 217 (quoting North Slope Borough v. Andrus, 486 F. Supp 332, 342 (D.D.C. 1980)).

524. *Id.* at 219.

525. *Id.* at 217.

526. *Id.* at 220.

527. *Id.*

528. *Id.* General environmental statutes such as the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973 both exempted "subsistence takings" by Alaskan natives from federal restrictions. *See* 16 U.S.C. §§ 1371(b), 1539(e).

529. Chiropolos, *supra* note 521, at 221.

530. *Cf. id.* at 223.

531. *Id.*

532. *Id.* at 223-24.

In a coordinated response to the Bowhead whale issue, whaling captains from each of the Inupiat villages formed the Alaska Eskimo Whaling Commission (AEWC).[533] The AEWC advocated for Inupiat interests in both the domestic and international arenas.[534] Eventually, the AEWC entered into a cooperative agreement with the National Oceanic and Atmospheric Administration to manage the bowhead harvest.[535] Significantly, the AEWC management plan rested on both customary Inupiat whaling laws, which encompass traditional environmental knowledge, and the use of modern technology and scientific methods.[536] The AEWC gives whaling workshops which combine technological improvements with traditional knowledge and expertise.[537]

As one commentator has noted, the AEWC serves as a "model for other embattled indigenous peoples to protect their cultural integrity by establishing their credibility as natural resource managers."[538] Indeed, other indigenous peoples have also formed organizations to engage in cooperative resource management regimes. For example, the InterTribal Bison Cooperative (ITBC) was formed in 1990 by twenty-four tribes which had traditionally relied on buffalo for their subsistence to "coordinate . . . and assist all interested tribes in returning the buffalo to Indian country."[539] Alex White Plume, an Oglala Sioux and director of his tribe's Parks and Recreation authority succinctly describes the traditional relationship of Plains tribes to Buffalo: "The buffalo is our leader, our survival, our future."[540] The ITBC has developed a management plan to restock tribal herds with excess buffalo from Yellowstone Park.[541] The Park buffalo have begun to cause problems for the park's ecosystem, and officials have not developed a workable solution. The National Park Service has agreed to develop a comprehensive plan for the Yellowstone buffalo and is seriously considering the ITBC's proposal as a component of the Plan.[542] For the Lakota Sioux and other Plains tribes, the buffalo is a symbol of the continuing existence of the people and their traditional

533. *Id.* at 224.
534. *Id.*
535. *Id.* at 225-26.
536. *Id.* at 226-27.
537. *Id.* at 227-28.
538. *Id.* at 228.
539. *Id.* at 229 (citation omitted).
540. Bill Harlan, *The Buffalo Nation*, L.A. TIMES, Jan. 13, 1995, at E6.
541. *Id.*
542. *Id.*

belief system. Thus, it is critical to establish a tribal voice in the larger policy decisions that govern the buffalo and their traditional habitats.

The Northwest Indian Fisheries Commission (the Commission), composed of twenty treaty tribes, is another example of a cooperative effort by several tribes who have traditionally used the same water and fishery resources. The Commission drafted a Coordinated Tribal Water Quality Program, acknowledging their mutual dependence on "clean water for the natural resources that are the basis of our cultural, economic, and spiritual health."[543] The Commission has also been involved in drafting plans for cooperative management of the Puget Sound fisheries as well as several other cooperative efforts to manage mutual water and fishery resources.[544] A particularly significant development was the Pacific Salmon Treaty of 1985 between the United States and Canada, the result of joint efforts by tribal, state, and federal officials.[545] The treaty established an administrative mechanism "in which the tribes have a strong voice" for "cooperative management and protection of each nation's fish."[546] Significantly, the Commission sees part of its mission as "promoting respect for traditional tribal values about water and the environment."[547] Thus, although the members of the Commission are confronted with distinctly contemporary issues of water quality and endangered fish resources, they have developed solutions based on modern science, technology, and traditional value systems.

A final issue relating to the use of traditional indigenous knowledge in formulating tribal environmental law and policy is how to protect the peoples' rights to this knowledge against exploitation. For example, Western scientists and commercial interests now perceive "bioprospecting" of natural resources traditionally used by native peoples as being a "conservation tool."[548] Such "prospecting" raises serious ethical issues for indigenous peoples regarding access to traditional spiritual knowledge and exploitation of such knowledge by non-Indians for commercial ventures. For example, the Zunis have for generations worked to develop seed

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543. FEDERALLY RECOGNIZED INDIAN TRIBES IN WASHINGTON STATE, COORDINATED TRIBAL WATER QUALITY PROGRAM 1 (quoting Bill Frank, Jr., Chairman of the Northwest Indian Fisheries Commission) (on file with author).

544. *Id.* at 6-7.

545. Treaty Between the Government of the United States of America and the Government of Canada Concerning Pacific Salmon, Jan. 28, 1985, U.S.-Can., T.I.A.S. No. 11,091.

546. FEDERALLY RECOGNIZED INDIAN TRIBES IN WASHINGTON STATE, *supra* note 543, at 6.

547. *Id.* at 8.

548. *See* Steven M. Rubin & Stanwood C. Fish, *Biodiversity Prospecting: Using Innovative Contractual Provisions to Foster Ethnobotanical Knowledge, Technology & Conservation*, 5 COLO. J. INT'L ENVTL. L. & POL'Y 23, 25 (1994).

stocks of corn that can withstand the harsh environment of New Mexico. However, the Zunis believe that control over Zuni crops and seed stocks is part of the spiritual legacy given to the Zuni people by the Creator and that, should they share this knowledge with non-Zunis, the potential misuse of sacred resources could destroy part of Zuni culture.[549]

It is difficult to reconcile indigenous claims for protection of sacred knowledge and resources with European and American beliefs that the "Earth's biotic wealth" is a common resource.[550] Moreover, the commercialization of natural resources or "natural product development," while seen as a social good by many Europeans and Americans, in part because it is so lucrative,[551] is, at the same time, perceived as cultural desecration by many indigenous peoples. Although intellectual property attorneys are currently concerned with the contractual issues surrounding "biodiversity prospecting," the ethical issues are not yet fully understood. Biodiversity prospecting is another example of value conflict that has not been resolved due to the Western failure to appreciate the significance of indigenous claims and accord them appropriate respect. Biodiversity prospecting clearly has both cultural and economic implications for indigenous peoples, and thus raises the issue of how tribal environmental and economic development policies interface.

## VI. TRIBAL ENVIRONMENTAL POLICY AND ECONOMIC DEVELOPMENT

Issues of environmental protection are in many cases inseparable from issues of economic development. For Indian tribes and other "underdeveloped" nations attempting to achieve economic parity after generations of severe poverty, the balance between environmental preservation and economic development is particularly compelling. Moreover, for developing countries, as for Indian nations, sovereignty plays an important role in ensuring that the balance reflects governmental choice rather than the dictates of a colonial power. The question, however, is how to assert sovereignty in a society built upon market norms and the demands and preferences of majority groups. Indian nations have

549. Enote, Conservation at the Zuni Pueblo, *supra* note 420, at 4.

550. *See* Rubin & Fish, *supra* note 548, at 26-27.

551. For example, as one commentator notes: "the 1985 world market value for medicines derived from medicinal plants discovered from Indigenous peoples has been determined to be . . . $43 billion: less than one-hundredth of one percent of the profits derived from these sources has ever been returned to those people." CLARKSON ET AL., *supra* note 285, at 63 (citing D. Posey, *Intellectual Property Rights and Just Compensation for Indigenous Knowledge*, ANTHROPOLOGY TODAY, Aug. 1990, at 13, 15).

the unfortunate position of straddling two separate economic and cultural systems; they must respond to the pressures of both.

### *A. Environmentalism and Economic Development: The Conflict of Values*

Clearly, environmental self-determination is best accomplished through a coordinated system of law and policy. However, such a system of law and policy necessarily rests on value judgments about economic development and environmental protection. This provides an added challenge for Indian nations who face competing value judgements stemming from both traditional value systems and transposed Anglo-American value systems as well as a need to become integrated into the national economy and system of environmental law. As demonstrated above, these competing value judgments often result in conflicts over what constitutes appropriate land use.

Even international statements of environmental policy speak to the separate place of traditional indigenous norms. For example, the statements of global environmental policy that emerged from the Rio Summit recognize indigenous peoples as important contributors to environmental decision-making because of the belief that traditional indigenous values are more conducive to environmental protection than are the Western European values that have guided global development for so long.[552] One might question whether this type of recognition bolsters tribal sovereignty and autonomy or whether it is more like the early arguments made for women's suffrage that the woman's more "refined" nature was a reason to "trust" her to vote, rather than her individual right to autonomy providing her a "right" to vote.[553] In any case, the Indian nations are confronted with a unique challenge. Through statements such as those that emerged from the Rio Summit, the Indian nations are thrust into the vanguard of policy development toward "sustainable" use and environmental protection. However, they must also overcome the severe underdevelopment on the reservations which has resulted in some of the

552. *Report of the United Nations Conference on Environment and Development*, U.N. Conference on Environment and Development, at 21, U.N. Doc. A/Conf.151/26 (Vol. I) (1992); *see supra* text accompanying note 10.

553. Professor Carole Goldberg-Ambrose raises this concern, which I feel is justified, although I need to study those early documents more carefully before accepting the analogy.

worst conditions of poverty and deprivation to be found within the United States.[554]

In an effort to overcome widespread dependency and deal with ephemeral federal budgets, contemporary Indian nations have expanded their economies to invite non-Indian industrial development through commercial leasing of tribal lands. As a result, tribal economies are often heavily dependent upon investment by non-Indian owned corporations leasing tribal lands. While this may provide tangible benefits to the tribe, it also makes the tribal economy dependent on mainstream societal economics.[555] Some commentators point to the dependence of indigenous economies on the national and global economies as a historic factor in eroding traditional economic and social institutions.[556] This leads to the question of whether the contemporary leasing of tribal lands to non-Indian entrepreneurs, although tribally-initiated, is distinguishable from the policies a century ago of non-Indian bureaucrats who leased tribal lands to non-Indians.[557] In both situations, the reservation becomes a source of raw materials to be exploited by non-Indians for the needs of urban America and, in both cases, the indigenous economy is dependent upon the national or global economies for its own survival. Some commentators liken indigenous economies to the "divergent" economies, found in Third World nations where the goods that are "produced locally [are] not consumed locally, and what is consumed locally is not produced locally."[558] In any event, the extensive links between tribal economies and the mainstream economy suggest that market economics has a significant impact on tribal environmental decision-making.

Indeed, market economics is another example of decentralized law-making, but one that proceeds from a vastly different value system than the decentralized law-making systems of traditional indigenous societies.[559]

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554. The concept of "sustainable development" appears to focus on reconciling economic needs with needs for environmental protection, and thus has unique importance for Indian nations. *See supra* notes 354-65 and accompanying text.

555. This may be inevitable, however. Most nations are dependent upon the trade of other nations in the global economy. Furthermore, the government's trust duty to Indians renders them unable to engage in foreign trade without the consent of the U.S. government. Thus, as "domestic" nations, tribal economies would seem to be permanently linked with the economy of the United States.

556. For example, the fur trade upset the balance of local economies and coerced the indigenous people into a dependency on credit and a "welfare economy." CLARKSON ET AL., *supra* note 285, at 20-21.

557. *See* discussion *supra* Part V.B.

558. CLARKSON ET AL., *supra* note 285, at 21. The term "divergent" refers to the degree of divergence between local resource use and demand. *Id.*

559. *See generally, e.g.*, Robert D. Cooter, *Inventing Market Property: The Land Courts of Papua New Guinea*, 25 L. & SOC'Y REV. 759 (1991); Cooter & Ulen, *supra* note 82.

Nevertheless, indigenous peoples today must live under two types of economic regimes. In the words of one indigenous leader: "[T]he dominant economy, which sees the environment as property and as profit-generating raw material, and their own informal economy, which sees the environment as a renewable resource and life-support system to be conserved for posterity."[560] Whether these two systems can be reconciled, and accommodate all the intermediate views, is a question that attaches to the various models of economic development that have been proposed for Indian nations.[561]

### *B. Models of Indigenous Economic Development*

Contemporary economists have proposed numerous models of development to assist underdeveloped countries. However, these models of development are based on "Western materialistic and individualistic values" which may not work in indigenous societies due to the differing local values, histories, and cultures in those societies.[562] The challenge is to find ways of achieving economic development that are consistent with indigenous values, such as reciprocity, consensus, community, and sustainability. Delores Huff makes the observation that development must be consistent with tribal culture to be successful and notes the failure of economic development plans which have attempted to change tribal values.[563]

Several models have been proposed to facilitate economic development that is consistent with indigenous cultural values. The "indigenous rights model" asserts that gaining tribal autonomy over land, resources, education, and government will facilitate economic development. The key under this "self-determination" model is to create the conditions for political power. For example, restructuring tribal governmental institutions to overcome the effects of colonialism, with the thought that economic development will follow.[564] The indigenous rights

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560. Charles Scheiner, *Indigenous Peoples, Environment and Development*, Nov. 24, 1992, *available in* NativeNet Bulletin.

561. The question of economic development on the reservation is quite complex, and the discussion in this Article is necessarily simplified to illustrate the connection between economics and environmental preservation in light of the harsh realities of contemporary reservation economies.

562. *See* Brascoupe, *supra* note 265, at 15.

563. Huff, *supra* note 157, at 80-85 (giving examples of economic development plans based on Anglo-American principles which failed due to conflict with tribal values).

564. Brascoupe, *supra* note 265, at 15-16. *See also* John C. Mohawk, *Indian Economic Development: An Evolving Concept of Sovereignty*, 39 BUFF. L. REV. 495, 501 (1991) (advocating, for example, that tribal leadership be restrained from opportunistic behavior and that an independent

model would reject the legacies of colonialism which are now embedded to a significant degree in many tribal governmental and economic institutions and would advocate a return to traditional structures.

An alternative and slightly less radical model is the "community-based development model" which advocates increased community participation in decision-making, "local control and management of development, and new value-based decisions."[565] This model focuses on consensus among community members and self-reliance.[566]

A variation of the community-based development model is the "culture-based model" which asserts that the traditional cultures and values must be incorporated into the development of new economic structures, rather than attempting to integrate indigenous cultures into the mainstream culture.[567] Like the indigenous rights model, the "culture-based model" is also premised on "decolonization" and affirms self-determination for indigenous peoples according to traditional values such as "group objectives, spirituality and a relationship with the environment."[568] Unlike the indigenous rights model, the culture-based model does not advocate the radical restructuring of existing institutions. Rather, the model indicates that existing governmental institutions will become more responsive to the needs of the community if tribal members increase their participation in decision-making. It is unclear, however, whether the role of community members in governmental decision-making would have to be formalized to some degree to ensure their rights to access and to give weight to their views.[569]

A third model is the "self-government model" which is presently being implemented in Canada under the James Bay and Northern Quebec

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judiciary be established to resolve conflict between the tribal council and others).

565. Brascoupe, *supra* note 265, at 16.

566. *See id.*

567. *Id.* at 16-17. *See also* Stephen Cornell & Joseph P. Kalt, *Reloading the Dice: Improving the Chances for Economic Development on American Indian Reservations*, *in* WHAT CAN TRIBES DO? STATEGIES AND INSTITUTIONS IN AMERICAN INDIAN ECONOMIC DEVELOPMENT 1, 53-54 (Stephen Cornell & Joseph P. Kalt eds., 1993).

568. Brascoupe, *supra* note 265, at 17.

569. Moreover, the success of such a model will undoubtedly be influenced by the nature of the existing government structure. In a case where traditional local and kinship political loyalties are not reflected in the governing council, political access is likely to be frustrated. *See* Duane Champagne, *American Indian Values and the Institutionalization of IRA Governments*, *in* AMERICAN INDIAN POLICY AND CULTURAL VALUES: CONFLICT AND ACCOMMODATION, *supra* note 157, at 26-28 (noting that the type of political solidarity needed to institutionalize a Western form of government, such as an IRA government, may be absent in many reservation communities due to preexisting political and cultural allegiances).

Agreement.[570] The self-government model is "predicated on the assumption that indigenous rights to land and resources will be extinguished," but indigenous groups will be granted ownership of certain lands, "the power to tax and delegated power over the administration of community services."[571] This rather incorporative model seeks to give indigenous people a voice in majority political institutions while simultaneously recognizing their differing cultural traditions, for example, the need to maintain traditional hunting and fishing economies.[572] Thus, the model holds that effective political power depends to some degree upon tribal incorporation into majority political and economic institutions. At the same time the model continues to favor a measure of tribal autonomy and adherence to traditional customs.

The "traditional way of life model" is perhaps the most vehemently committed to decolonization. Like the self-government model, many economic development models advocate bringing Indian nations into mainstream global economic development, which means industrialization and incorporation into the market economy. Whether this is accomplished by building on community institutions, as the community-based model suggests, or incorporating native people into majority institutions, as the self-government model suggests, the belief is that, to achieve permanent economic change, Indian people will have to "develop" their economies to approximate those of other nations. The traditional way of life model, however, argues that traditional subsistence economies based on respect and sharing can be successful if the majority governments make a commitment to support indigenous economies and adapt the market economy to complement indigenous economies.[573] For example, majority governments could enable traditional societies to "purchase market goods and adopt new technologies to make subsistence activities more efficient," and traditional hunter/gatherer societies in turn can "manage and protect threatened forests and ecosystems around the world."[574]

The traditional way of life model emphasizes the belief that traditional economies have important lessons for global sustainability and survival and that empowering those traditional societies will have benefits for the entire planet.[575] This model is, therefore, consistent with the assumptions underlying the Rio Summit's statements on the role of indigenous

570. *See supra* note 544 and accompanying text.

571. Brascoupe, *supra* note 265, at 16.

572. *Id.*

573. *Id.* at 17.

574. *Id.*

575. *Id.*

knowledge in global environmental management. The traditional way of life model may, however, discourage tribal economic enterprises that seem "nontraditional" and force the continuation of traditional land-based economies regardless of whether these can provide a standard of living that satisfies all tribal members.[576] For example, this model may advocate "eco-tourism" to "provide a livelihood for Indigenous peoples in ways that are culturally and ecologically sustainable."[577] Ironically, such "eco-tourism" has also been proposed by non-Indians seeking to ensure that tribal lands remain "pristine" for the enjoyment of non-Indians who have largely decimated their own natural resources.[578] Thus, the traditional way of life model may remove choices that are available to other governments on the basis of what verges on stereotypes in the minds of many contemporary Indian leaders.[579]

All of these proposals for tribal economic development contain valuable insights, yet they are all open to some criticism. Moreover, the question of what form future tribal economic development should take is complex and will likely vary significantly from Indian nation to Indian nation. What the various models of indigenous economic development identify, however, are some common elements that are necessary for successful tribal economic development. First, as Delores Huff points out in her critique of past reservation economic development, "[s]elf-sufficiency is attainable if the process of development is within the parameters of the tribal ethic."[580] Thus, as the community-based development model notes, tribal societies often require widespread community support and participation for successful economic development.

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576. For example, some indigenous people have called upon indigenous communities to strengthen their traditional subsistence economies "as an alternative to promoting industrial and other large scale production." CLARKSON ET AL., *supra* note 285, at 81.

577. *Id.* at 81-82.

578. *See, e.g.*, Lisa Schnebly-Heidinger, *Getting Their Ultimate Revenge*, ARIZ. REPUBLIC, July 4, 1993, at C3. Schnebly-Heidinger decries the movement by several Arizona tribes to establish gaming operations on their reservations, noting that the reservations are sources of the natural beauty that draws tourists to Arizona. *Id.* She suggests that, instead of gaming, Indian tribes should sponsor "adventure tours" for non-Indians who could then "see real Navajos herd genuine sheep, pick authentic melon, and sleep facing east." *Id.* Presumably, the economic benefits would be sufficient to sustain such a lifestyle for tribal members, and the non-Indians would have a "grand majestic place to flourish for centuries." *Id.*

579. *See, e.g.*, Gover & Walker, *supra* note 466. Gover and Walker discuss the widespread outrage among environmentalists and concerned citizens when an Indian nation contemplates a commercial waste project on the reservation, commenting that such outrage is often based on a "'noble savage' stereotype that leads one to believe that 'real Indians' do not produce trash, would never harm their environment, are simple in their approach to complex issues-in short, that Indians are just not smart enough to develop or regulate waste disposal responsibly." *Id.* at 942.

580. Huff, *supra* note 157, at 88.

Projects that do not call for community participation, such as enterprises that call for leasing of tribal land to non-Indians without significant creation of job opportunities for tribal members, may fail. Similarly, economic development plans that cause significant discord among tribal members may fail.[581] In each of these cases, the proposed economic development may conflict with traditional values of community, consensus, and responsibility of tribal leaders to tribal members.

Second, the indigenous rights model encompasses a belief that it is essential to reinvigorate tribal governments and institutions and move away from the type of dependency on Anglo-American institutions that colonialism facilitates. Thus, a spirited notion of self-determination and governmental autonomy over lands and resources may promote the type of long-term planning and stability needed for successful economic development. This should be contrasted with the historic model, in which the federal government set the economic agenda and the Indian nations were forced to respond to the vagaries of federal policy.

Finally, it is important to balance the needs of tribal members for a connection to traditional norms and values with the need of tribal governments to be stakeholders in the national and global policy-making agenda. Thus, the self-government model recognizes that Indian nations do need to have a voice in majority political institutions to ensure that tribal rights are respected and that tribal views can influence centralized policy. However, a precept of the traditional way of life model is that the federal government and international governments should respect land-based indigenous subsistence economies and should not force indigenous peoples to forego traditional values and assimilate to Western values.

The balance needed for successful economic development on the reservation is quite sensitive and often difficult to articulate given the pressing economic realities that confront Indian nations. Indian people currently suffer desperate conditions of poverty, and their lands are largely "undeveloped." Thus, as James Huffman has noted, for indigenous peoples, "reservations present a classic opportunity for conflict between developmental and environmental interests."[582] Professor Huffman cautions Indian people against accepting the noble "in harmony with nature" role that environmentalists want them to play.[583] By returning to

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581. For example, the proposed monitored retrievable storage facility at Mescalero has caused a deep rift between tribal members. If the project is ever implemented, it may deepen this rift if the benefits (such as jobs created) are thought to accrue only to supporters of the project, or if a significant portion of the community is still concerned about the potential of devastating environmental contamination.

582. Huffman, *supra* note 83, at 909-10.

583. *Id.* at 902-03.

traditional "preindustrial" economies and refusing to engage in other types of economic development, as environmentalists desire, Indian nations

> will find their often squalid circumstances worse rather than better: While white Americans pursue harmony with mother nature from their comfortable offices on the Potomac and their high tech kayaks on the Colorado, Native Americans will struggle to feed their children and make sense of a culture not of nature but of alcohol, poverty and desperation.[584]

According to Professor Huffman, "[t]his imagined Native American philosophy will neither serve the Indian nor provide a realistic path to a livable environment in the 21st Century."[585]

Huffman likens the environmental movement to many other assimilationist movements in American history. Instead of the federal government trying to assimilate the Indians, however, the environmentalists want to set the policy agenda and "sell" it to Indians, arguing that it coincides with traditional Indian values. In fact, Huffman points out, orthodox environmental thinking is premised on three main assumptions which work *against* tribal interests: first, that ecology (the merger of science and policy) can determine the "correct" environmental condition; second, that undeveloped land should remain so; and, finally, that "biocentric thinking" must prevail.[586] Thus, the special interests of certain population groups (such as Native Americans) cannot prevail if they are not also in the paramount interest of the "natural world."

Huffman's point is well taken given that Anglo-American science and economic policy has often worked to disenfranchise Indian people and that national implementation of centralized policies (whatever their origin and content) often disregards tribal sovereignty and the special interests of indigenous peoples.[587] The point is also borne out by previous policies, such as the national park policy, that disregarded tribal land rights in favor of national "conservation" interests.[588] Thus, modern environmentalism may well act to disadvantage the "equity" interests of American Indians in a fair distribution of societal resources.[589]

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584. *Id.* at 903.

585. *Id.*

586. *Id.* at 910-11.

587. *See supra* text accompanying notes 84-86.

588. *See supra* note 231 and accompanying text.

589. *See supra* text accompanying note 232.

However, it would seem incorrect to imply that traditional indigenous norms and values do not have an important role in shaping tribal economic development. In fact, to the extent that norms of community, consensus, and responsibility are met, some Indian nations may choose to engage in nontraditional economic development with very successful results, as did the Campo Tribe in California.[590] The Native American attorneys who worked with the Campo Tribe quote a tribal member who speaks about the values of sharing and survival that went into the decision to proceed with the waste facility:

> People don't seem to understand that sharing is part of surviving. People have to sacrifice certain things in order for another to survive. People here are trying to put away waste that non-Indians have created, and all we're trying to do is dispose of that so we, too, can live.[591]

As this quote demonstrates, Indian nations may have a variety of traditional norms: norms about preserving the land and preserving the tribe; norms about responsibility, reciprocity, and sharing; and norms concerning community consensus on difficult choices. Merely because an Indian nation selects a nontraditional means of economic development does not mean that the tribe has abandoned all of its traditional norms.[592] However, in some instances, the exercise of tribal sovereignty may mean that traditional norms about the relationship of humans to the environment are subordinated to other norms about ensuring the survival of the people and a decent standard of living. In difficult cases, where a compromise between or balancing of norms is called for, it would be unfair to expect Indian people to always choose the former set of norms over the latter, particularly in light of the severe poverty and deprivation that plague many reservations today.[593]

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590. *See* Gover & Walker, *supra* note 466, at 936-42 (detailing the process used at Campo to gain community support for the waste facility and ensure that the benefits of the project accrue to all members).

591. *Id.* at 943 (quoting CAMPO: SHARING THE FUTURE (Ringe Media, Inc. 1991) (video on file with the Campo Band of Mission Indians)).

592. This comment, of course, assumes that the choice that the Indian nation selects is a product of true "choice" and not economic coercion forced by a history of colonialism and disenfranchisement. The latter point, which is made by those who perceive the siting of waste facilities on reservations or minority communities to be "environmental racism," is beyond the scope of this paper, but is a topic I reach in my paper on indigenous rights to the environment.

593. As my colleague Jeffrie Murphy notes, this may be an example of a conflict between "higher order" norms and "lower order" norms. We may agree that these are all desirable norms, but disagree with the ranking. Environmentalists, for example, are often relatively affluent members of society who perceive environmental preservation as the paramount value; whereas an unemployed,

### *C. Sovereignty and Economic Self-Sufficiency*

The range in views represented by the different models for tribal economic development correlates to the debate within Indian law over which view of tribal sovereignty will achieve lasting respect and recognition within Anglo-American society.[594] Some have argued that, to the extent that Indian nations assimilate to Anglo-American norms, they jeopardize their separate status by destroying the primary justification for that status: their cultural uniqueness.[595] Others argue that tribal sovereignty is only recognized by the courts to the extent that it is consistent with Anglo-American norms.[596] Conduct that is normatively different is "suspect" and thus removed from the scope of tribal sovereignty.

Both perspectives are correct, to some extent, and both provide some illumination for this Article's comparative discussion of environmental ethics, policy, and economic development. For example, in *Brendale v. Confederated Tribes and Bands of Yakima Indian Nation*,[597] Justice Stevens formulated an analysis that decided the future of tribal zoning authority on non-member owned fee lands. He claimed that "[z]oning is the process whereby a community defines its essential character."[598] The Court held that the Tribe retained some authority to regulate land use *only* to the extent that the Tribe used its power to exclude non-members from entering most of the "closed area" of the reservation in order to ensure that the area "remains an undeveloped refuge of cultural and religious significance, a place where tribal members 'may camp, hunt, fish, and gather roots and berries in the tradition of their culture.'"[599] Thus, while the Tribe retained authority to regulate the more "pristine" lands on the reservation where tribal members engaged in "traditional" uses, the Tribe was divested of

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poverty-stricken person may prefer to have a job and food for his family, if forced to make a choice. In an ideal world, of course, such hard choices would not have to be made. But the world we live in is far from ideal.

594. My discussion here builds on Professor Carole Goldberg-Ambrose's insightful essay, *Tribal Governments and the Encounter*, *in* THE UNHEARD VOICES: AMERICAN INDIAN RESPONSES TO THE COLUMBIAN QUINCENTENARY 157-64 (Carol M. Gentry & Donald A. Grinde, Jr. eds., 1994).

595. *See generally, e.g.*, Philip S. Deloria, *The Era of Self-Determination: An Overview*, *in* INDIAN SELF-RULE: FIRST-HAND ACCOUNTS OF INDIAN-WHITE RELATIONS FROM ROOSEVELT TO REAGAN 191-207 (Kenneth R. Philp ed., 1986).

596. *See, e.g.*, Robert Williams, Jr., *The Algebra of Federal Indian Law: The Hard Trail of Decolonizing and Americanizing the White Man's Indian Jurisprudence*, 1986 WIS. L. REV. 219.

597. Brendale v. Confederated Tribes of Yakima Indian Nation, 492 U.S. 408 (1989).

598. *Id.* at 433.

599. *Id.* at 441 (quoting Amended Zoning Regulations of the Yakima Indian Nation, Resolution No. 1-98-72, § 23 (1972)).

such authority in the so-called "open" area of the reservation, which possessed a more urban character and a greater percentage of non-Indian landowners.[600]

As Justice Blackmun's dissent observes, this analysis reflects a "stereotyped and almost patronizing view of Indians and reservation life."[601] Moreover, it puts the tribes in a different position than any other government. In order to justify its zoning authority, the Tribe must preserve the "essential character" of the reservation and perhaps even "forego economic development" to maintain its reservation "according to a single, perhaps quaint, view of what is characteristically 'Indian' today."[602]

*Brendale's* "Indian character" test, which has an analogue in the Court's opinion in *Solem v. Bartlett*,[603] clearly supports the argument that "cultural uniqueness" is what justifies the unique status of Indian nations. The argument is also evident in the State of Montana's recent action to divest the Salish & Kootenai Tribes of their regulatory jurisdiction under the Clean Water Act on the Flathead Reservation.[604] Significantly, the State's position in that case is partially premised on the belief that, in approving the Tribe's water quality standards, the EPA failed to make an inquiry of the "character of the involved area."[605] Thus, the State of Montana seeks to apply *Brendale's* Indian character test to determine when a Tribe may permissibly regulate water quality throughout the reservation.

The alternative perspective—that tribal jurisdiction is recognized only when consistent with Anglo-American norms—appears to be another ground for state attempts to divest Tribes of uniform environmental regulatory jurisdiction. For example, in *City of Albuquerque v. Browner*, the City, an upstream user, protested that it should not have to conform to Isleta's standards, which were based in part on tribal ceremonial uses.[606] The City suggested that such a standard was too vague and could be unconstitutional as a federally sanctioned "mandate which aids tribal

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600. *Id.* at 444-45.

601. *Id.* at 464-65.

602. *Id.*

603. Solem v. Bartlett, 465 U.S 463, 471 (1984) (finding that "de facto" diminishment of a reservation can occur where "non-Indian settlers flooded into the opened portion of a reservation and the area has long since lost its Indian character").

604. Montana v. EPA, 941 F. Supp. 945 (D. Mont. 1996) (upholding EPA's approval of the Confederated Salish and Kootenai Tribes' water quality standards).

605. Memorandum in Support of Plaintiffs' Motion for Summary Judgment at 20, Montana v. EPA, 941 F. Supp. 945 (D. Mont. 1996). I would like to thank Leigh Price of the EPA for sharing the pleadings in this case and his insights into the case.

606. *Browner*, 865 F. Supp. at 740.

religion at City expense."[607] Albuquerque expressed great discomfort with the thought that Isleta may have used traditional tribal norms in fashioning its water quality standards, in addition to the typical criteria employed by states.

Indeed, the entire "implicit divestiture" argument that undergirds *Brendale* and its antecedents, *Montana v. United States*[608] and *Oliphant v. Suquamish Tribe*,[609] is premised in part on the view that Congress could not have intended to allow certain types of tribal jurisdiction over non-Indians because of the importance of the liberty and property interests at stake.[610] The underlying assumption, of course, is that tribal justice systems are normatively different and would be unfair to non-Indians.

Can these inconsistent threads of Indian law jurisprudence be reconciled in order to offer a realistic chance for tribal environmental self-determination? Professor Carole Goldberg-Ambrose argues for a "strong" theory of internal tribal sovereignty that would permit tribes to engage in activities, whether normatively compatible with Anglo-American society or not, on the basis that this is a legal right of Indian nations.[611] Thus, as Kevin Gover and Jana Walker point out with respect to the Campo case, the sovereign choice of an Indian nation to locate a solid or hazardous waste facility on Indian land should be respected, even if it is perceived to be inconsistent with the tribe's traditional character.[612] Similarly, an Indian nation's decision to forego some types of economic development as inconsistent with tribal values should be respected, and alternative methods of bringing the tribe into economic parity explored. Professor Goldberg-Ambrose's theory is consistent with the principles of territorial autonomy and self-determination that undergird the notion of environmental self-determination. A strong notion of internal tribal sovereignty is also necessary to overcome the impacts of colonialism, including dependency, and to promote viable self-sufficiency for Indian nations.

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607. *Id.* at 740-41.

608. Montana v. United States, 450 U.S. 544 (1981).

609. Oliphant v. Suquamish, 435 U.S. 191 (1978).

610. *See* N. Bruce Duthu, *Implicit Divestiture of Tribal Powers: Locating Legitimate Sources of Authority in Indian Country*, 19 AM. INDIAN L. REV. 353, 376-77 (1994).

611. *See* Goldberg-Ambrose, *supra* note 594, at 161-62.

612. *See* Gover & Walker, *supra* note 466, at 933. Gover and Walker assert that "[l]eft to apply their own intelligence, beliefs, and values to a situation, [the Tribe] will make the right decision." *Id.* at 943.

## CONCLUSION

This Article has explored the role of values in environmental decision-making, and the challenges Indian nations face as they try to reconcile indigenous values with those of Anglo-American culture. Indian nations currently exercise a degree of autonomy over the reservation environment under their inherent sovereignty and under the federal self-determination policy which has, for example, facilitated amendments to many of the federal environmental statutes authorizing tribal regulation.[613] This movement toward "environmental self-determination" has enabled the tribes to overcome or mitigate the impacts of earlier federal policies designed to exploit tribal natural resources and incorporate Indian tribes into the larger market economy of the United States. True environmental self-determination, however, depends upon the ability of Indian nations to preserve their landbases and engage in economic development according to their own policies and values. This is a difficult process, one beset by questions of balance between traditional uses and contemporary economics, by the influences of distributive justice and sustainability, and by a complex layering of values.

Although it is sometimes difficult to isolate "traditional" indigenous values, it is apparent that tribal attitudes toward the environment are often influenced by indigenous belief systems premised on what Professor Trosper calls the "ethic of respect"[614] and what, in the context of economic development, Delores Huff calls the "tribal ethic."[615] Such indigenous systems of ethics focus on values of community, connectedness, a relationship to specific geographic places, a relationship to future generations, and reciprocity and kinship with the natural world. These systems of ethics play an essential role in the development and maintenance of traditional ecological knowledge, which has guided the relationship of human beings to the land for generations among indigenous societies.[616]

Traditional tribal land ethics, however, have been influenced by colonialism and a history of forced assimilation to Anglo-American norms. This process of "value colonialism"—and its influences of capitalism, technology, and Christianity—have permeated reservation social and economic institutions. Moreover, the current property and political

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613. *See supra* notes 19-21 and accompanying text.

614. Trosper, *supra* note 262, at 67.

615. Huff, *supra* note 157, at 77-80.

616. *See* Kapashesit & Klippenstein, *supra* note 105, at 927; *see generally* LaDuke, *supra* note 261.

structures in the United States have, through federal policies that encouraged the removal of traditional land bases and the forced assimilation into Anglo-American cultures, largely been built at the expense of Indian nations.[617] Today, Indian nations face an uncertain economic future in the face of federal budget cuts and restructuring.[618] Tribal lands and resources are significant components of economic development, and the question is whether the indigenous systems of ethics that governed the traditional land-based economies can provide meaningful guidance for contemporary tribal planners.

The ethics of respect and duty that underlie traditional indigenous attitudes toward the environment have facilitated contemporary tribal environmental management consistent with traditional economies, including fishery, agricultural, and wilderness management.[619] The traditional ethics have often caused conflicts among tribal members concerned about plans to engage in types of non-traditional economic development that pose a possibility of substantial environmental contamination, such as mining, waste disposal facilities, and nuclear waste repositories.[620] For those tribes that have chosen to proceed with such projects, it is probable that other traditional ethics, such as consensus, responsibility, and tribal preservation, prevailed over doubts as to compatibility with traditional attitudes toward the natural world. During the decision-making process virtually all governments must rank values into those of a "higher order" and those of a "lower order." This type of decision-making is arguably consistent with tribal environmental self-determination, regardless of the actual results, so long as it is consistent with tribal norms regarding appropriate process.

A common theme that emerges in tribal economic development is that land, and hence the use of land, is a repository of community, rather than individual, values. The connections of the Indian people to their reservation lands are deeply-rooted and complex. Tribal governments clearly perceive that the future of the people is linked to the land; land is

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617. *See generally* Joseph Singer, *Sovereignty and Property*, 86 NW. U. L. REV. 1 (1991); Williams, *Documents of Barbarism*, *supra* note 139.

618. In a year marked by political turmoil over the federal budget, the extent of the cuts for the Bureau of Indian Affairs is still uncertain. In September, tribal leaders protested proposals to cut BIA's $1.7 billion budget by 25%. *BIA Intends to Lay Off Thousands of Workers*, TRIBUNE NEWSPAPERS, Sept. 7, 1995, at B6.

619. *See* Kapashesit & Klippenstein, *supra* note 105; *see also supra* notes 377, 384, and accompanying text.

620. For example, Los Coyotes. *See* MCGOVERN, *supra* note 4, at 223-31.

not fungible for Indian people, nor is it merely of instrumental value.[621] This sense of rootedness, connection and place makes environmental decision-making particularly difficult for Indian nations.

The tribal "ethic of place"[622] is clearly influenced by contemporary economic realities and the historic inequities that continue to permeate American property law and environmental policy. However, it is important not to underestimate the capacity of tribal governments to continue the commitment to the lands that largely defines the identity of their people. Traditional indigenous values can play a unique role in formulating tribal environmental policy and establishing systems of law that are compatible with the current economic needs of Indian people. Contemporary environmental decision-making will determine, after all, the future of Indian people and Indian lands for generations to come.

Far to the south, the Lacandon Maya of Chiapas press for protection of their sacred rainforest, an ancient homeland that the Lacandon people have long shared with jaguars, scarlet macaws, and rich stands of mahogany trees. The Lacandon are joined in their struggle by the Lummi Nation of Washington and other tribal leaders; international borders fade to insignificance as they speak with a unified indigenous voice:

> It is now the time before the end of time and we must tie the bonds as children of the earth, or suffer the loss of all things given to us by the Creator. Without the forest, the sky will fall. The destiny of one is the destiny of all. We stand together in this, the final struggle that will determine the common destiny of all peoples of this, our Mother Earth.[623]

Not content to sit by and watch the destruction of their homeland, the Lacandon Maya have instituted a vigorous campaign to stop the illegal

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621. *See generally* ROLSTON, *supra* note 262 (differentiating an ethic where "environment is secondary to human interests," for example "instrumental and auxiliary," from environmental ethics in the "primary, naturalistic sense," when "humans ask questions not merely of prudential use but of appropriate respect and duty").

622. The reference here builds on what Professor Charles Wilkinson calls the "ethic of place" a broad policy formulation that can unite citizens in a common bioregion around shared values and a common vision of sustainability. *See* CHARLES F. WILKINSON, THE EAGLE BIRD: MAPPING A NEW WEST 137-40 (1992). As Wilkinson writes: "An ethic of place ought to be a shared community value and ought to manifest itself in a dogged determination to treat the environment and its people as equals, to recognize both as sacred and to insure that all members of the community not just search for but insist upon solutions that fulfill the ethic." *Id.* at 138.

623. GRINDE & JOHANSEN, *supra* note 254, at 242 (quoting Kurt Russo & Lisa Dabek, *Common Cause and Common Destiny: The Lancandon Rainforest Project, in* OUR PEOPLE, OUR LAND: PERSPECTIVES OF THE COLUMBUS QUINCENTENARY 79 (Kurt Russo ed., 1992)).

smuggling of the jungle's endangered flora and fauna.[624] One community leader notes the failure of the Mexican government to protect the animals of the jungle, and comments "[w]e realized that we must take care of what is ours."[625] For the Lacandon and other indigenous peoples, the connections between the culture and the landscape run deep, and these connections are essential in the struggle to define an indigenous right to environmental self-determination.

624. *See* S. Lynne Walker, *Plundered Jungles: Rampant Theft Depletes Exotic Mexican Species*, THE SAN DIEGO UNION TRIBUNE, Jan. 21, 1996, at A1.

625. *Id.* at A18.